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THE GARDEN BLUEBOOK

A Manual of the Perennial Garden

By LEICESTER BODINE HOLLAND



ILLUSTRATED

Garden City New York Doubleday, Page & Company

1927

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To My Sister LUCY And Her Garden By the Sea



THE GARDEN BLUEBOOK

INTRODUCTORY

OW there are Ornaments also without, as Gardens, Fountains, Groves, Conservatories of rare Beasts, Birds, and Fishes. Of which ignobler kind of creatures, we ought not (Saith our greatest Master among the Sons of Nature*) childishly to despise the Contemplation; for in all things that are natural, there is ever something that is admirable. Of these external delights a word or two.

"First, I must note a certain contrariety between building and gardening: For as Fabricks should be regular, so Gardens should be irregular, or at least cast into a very wild Regularity."

So writes the gentle knight, Sir Henry Wotton, in his little treatise on the Elements of Architecture, and so must we conceive our gardens of today; to have them share in the quiet dignity and quaint charm of those "various entertainments of his scent and sight" which delighted him in his seventeenth century England.

"Cast into a wild Regularity," there is the problem of garden composition. And indeed it is a problem, for the garden must be a bouquet, not like those the children pick, unchosen flowers massed as they come, leafless and choking in the little hand, but thoughtfully and graciously arranged with choice of color and plant form well studied, and here and there, between and behind the brilliant blossoms, strong clumps and masses of foliage to rest the eye and give a setting to our garden pictures.

Many books have been written on color in the flower garden, but few, if any, on foliage in the flower garden, and to my mind that is almost half the battle. Fill the herbaceous border to a third or almost a half of its area with shrubs—Spiræa, Deutzia, bush Honeysuckle, Azalea, Kerria, etc., or even Barberry or Privet—and with perennials that hold fine solid clumps of foliage throughout the year, such as Peonies or Dictamnus; and if these be arranged to give a pleasing silhouette and to group well in their "wild regularity," you may fill the other space with Petunias and Scarlet

^{*}Aristotle lib. 1 cap. 5.

Sage, or what you will, still you will find it very hard to spoil the picture. And on the other hand, the choicest flower composition that you can devise will profit all the more by the space and background of green that you give to it.

But though the background be one half the garden composition it is by far the easiest half; for all or almost all we have to consider there is size and shape. Color and texture of foliage is of secondary importance, and all these factors are practically constant throughout the year, while blossoming may almost be ignored; whereas in the floral half of our composition we have constantly to consider factors of color and height, which change with every week from early spring to fall. A spot that is magnificent in July may be a desert in August unless the garden is wisely planned. In this I am assuming, of course, that our garden is one of perennials or at least is chiefly such, annuals being used only here and there to fill in gaps where, as it were, our plants have played us tricks, for the perennial garden besides being the most enduring and, when once established, the cheapest and easiest to tend, is also the most symphonic, if I may use the term, in that its harmony is not constant, but resolves continually from one color picture to another in a melody of bloom.

To compose a symphony one must carry in one's mind the qualities and possibilities of all the instruments in the orchestra, and to compose a garden symphony one should be able to say just what plants will be blooming at each point in the summer's progress and what the height and color of each will be. It may be possible to do this in one's mind, but certainly not without years of intimate experience in garden tending; and for us, laymen, who wish to devise each his own personal symphony, it is hopeless; and so we have recourse to flower lists which tell us what there is that is white, which blooms in June, and so on; and mostly we pore over the catalogues of nurserymen, hunting for the note which will complete the particular harmony our imagination pictures.

As an aid to arranging flower harmonies and flower sequences the accompanying charts (see inserts, front cover) have been prepared. They do not by any means include all the herbaceous perennials that are good, nor should all those here given be used in any one garden. As a matter of fact, it is hard to have too few varieties in a border. So long as the bloom is continuous and the harmonies good, the fewer the kinds and the larger the masses the better. A natural spirit of curiosity and that collector's mania which we all possess is only too apt to make our beds herbatia rather than gardens. But there are a great many

good harmonies possible, and different situations call for different plants to fit them, so besides those which are preëminently the garden favorites, many other well-deserving plants have been included, to supply, if possible, some capable candidate to fill each particular vacancy that may arise.

HOW TO USE THE CHARTS

In arranging the charts the plants have been placed in the order of their heights, beginning with the tallest, for this is the first quality that concerns us in our garden pictures. If we want something for the back of the border we use the top part of the list; if something for an edging, the bottom end. The last column to the right indicates by the length of the black bars the average heights of the various plants. Of course, this is necessarily only an approximation, for the height of any plant will vary, with a range of two or more feet for the taller ones, according to the soil and situation; and even the same individual specimen may change considerably from year to year. But in any case the *order* of height here given will be always very nearly the same, and that is the thing that most concerns us.

Next in order of importance come color and the season of bloom, and these will be found indicated in the columns of colored bars on the green background. Here also there is of necessity an approximation, the different flowers on the same plant may vary perceptibly in color, and many flowers comprise several colors within themselves. The ordinary Daisy, for example, is both white and yellow, but at a little distance the white so predominates that the yellow centre is lost. Therefore the color given on the chart is the color which a mass of each flower in question will usually present when seen from a little distance. Some of the color patches are graded, ranging, say, from pink to white and then to blue; this signifies that that particular flower can be had in any one of the tints included in that color scale. As for the period of bloom given, that is calculated for the neighborhood of Philadelphia, latitude 40 degrees north, and, roughly, the season for any point of the Atlantic States may be calculated by pushing it back six days for each degree farther north or forward for each one farther south. Thus New York City would be about five and Boston fifteen days later, and Washington about a week earlier. In any locality, however, the sequence and approximately the length of bloom here given will hold good, and that again is the important thing.

Now suppose our garden picture should require a plant of medium height blooming late in July and blue in color. The column headed JULY will give us all the plants blooming in that month; that section of it between four and two feet high will include all those of medium height and we find at once that No. 79, Platycodon, is the only one that will answer. Having found our plant, we move to the right to those columns between the season and height columns, and here we will find indicated by the presence or absence of a black spot whether our plant will grow well in sun, partial shade, or shade, or in two or more such situations; and whether it is fragrant or not.

Now while all the plants given can be grown in the ordinary border with little trouble, some are so constituted that they will thrive in sand and drought (though presumably doing better under kinder circumstances), and others do not mind how wet their roots may be. These are marked under the headings DRY and WET and by running down these columns you can find at once all the plants suitable for naturalizing on dry banks or by the water side, but also remember they do not absolutely demand these situations. Lastly, we have a column indicating which of our plants are suitable also for the rock garden.

When all this is done and we know that we have something that fits all our requirements we look to the left, and there we find the names of this something.

CONCERNING NAMES

I might almost say that the names, too, are approximate only. The English names are often legion as can be seen under the individual descriptions of the plants in the text of this book, and as but one could be given for each plant it had to be the one "approximately" most used. The same is true to a less extent of the Latin names, for the botanists have wrangled considerably over what to call some of these friends of ours, and even when they agree we frequently find that the nurserymen commonly use a name quite different. So when there has been much divergence of opinion, that form of the name most in common usage has been chosen. In several cases it is not botanically correct, but it will help us to find our candidate in the catalogues, and that, for the third time, is the important thing. The most approved botanical name, where not the one used in the chart, will be found indicated by an asterisk in the text descriptions.

THE SIGNS USED

If in front of the Latin name a little dagger be found, it means that the plant in question will hold its foliage and be quite presentable after blooming, but it will count as a mass of green of considerably less height than

when in bloom. If two daggers be found, it means either that the plant dies to the ground after blooming or that its foliage becomes unsightly; in any case that the plant or the spot it occupied must be concealed by something else planted in front. While those lucky ones which are free from daggers may be relied upon to form presentable masses of green of nearly the full flowering height throughout the season. Lastly, in some cases an asterisk is placed in front of the number attached to the plant. This indicates that the plant in question is not strictly a hardy perennial. Thus: No. 1, Althæa; No. 31 and No. 32, Anchusa; No. 40, Digitalis purpurea; No. 127, Aquilegia cærulea; No. 128, Dianthus barbatus; and No. 136. Papaver nudicaule, while technically all perennials rarely live or do well for more than two seasons. Althæa, Digitalis, and Dianthus, however, self-sow so readily that, unless one is particular about the color of the flowers, they may be relied upon to propagate themselves. No. 44, Campanula Medium, is always a biennial, and must be resown each year to provide yearly bloom. It is the only plant included which has no technical right in the list, but is so popular and valuable that an exception was made in its case. No. 40, Lilium auratum, is a hardy perennial but the bulb is short-lived and usually dies out in two or three years. No. 55, Montbretia, No. 83, Tritomia, and No. 85, Alstræmeria, are hardy perennials south of Philadelphia if given protection in winter, but in colder climates must be treated like Dahlias, lifted and wintered indoors.

The Latin names are the guides by which, having located a plant of the desired characteristics on the charts, we may refer to the text for supplementary information as to its habit in flower and foliage etc., with notes on its culture and propagation. These text descriptions are arranged in the alphabetical order of the Latin names, the numbers appended being for reference from the text to the chart.

DESIGNING THE GARDEN

Having now at our fingers' ends this knowledge of our instrumental possibilities, let us see what is the best way to go about building up the changing harmonies of our garden plan. Individual tastes and fancies enter naturally into any artistic work, and probably nowhere do they make themselves so strongly felt as in garden planning. This is altogether as it should be, for in some ways the garden is a more intimate and personal thing even than the house itself. In a great many cases it is planned, and to a large extent executed and tended, by the owner himself or perhaps more often by the owner herself; whereas, with the house, its con-

ception, execution, and maintenance depend almost wholly on the ideas and abilities of architects, builders, plumbers, paperers, and a whole world of necessary outsiders. But unless we are proven artists of great ability we will do well to guide these tastes and fancies of ours by certain rules which the professional artists have proclaimed, and we will do well also to remember that experience often teaches ways of attacking problems which are much easier, though often quite different, from the instinctive ways.

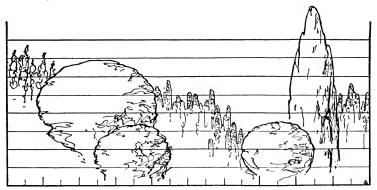
In all forms of artistic composition this is the first and greatest rule: Consider the composition as a whole to begin with, and do not concern yourself with details, until the large masses have been completely and satisfactorily arranged. In gardening this rule runs counter to most natural tendencies; we are much more apt to be interested in some particular flower that we love, than in questions of mass and grouping; some of us even go so far as to be more interested in the literary associations of the names than in the actual flowers. But if we are to achieve a really artistic result, we must sternly suppress these natural tendencies until the serious business of large composition is settled.

This applies to any border larger than the very smallest, for if it be too small for anything over four feet high it may still be large enough for Azaleas and Peonies, and even the difference in mass between Gypsophila and Platycodon is important, if the latter be the most massive plant of our assortment. If, therefore, we were laying out grounds of considerable size, I would say, first, plant the trees, then the shrubs, then the perennials, and lastly, bulbs, bedding plants, and annuals. Do not merely plan all these and then start by planting perennials, but actually plant them in the given order. If funds will not warrant putting in trees and perennials the same year, do without the perennials. For, in the first place, the trees grow so much more slowly that they need the head start; in the second place, if they are not put in at the beginning, one thing and another may delay their planting from year to year, the composition all this while suffering for lack of what should have been its dominant note; and in the third place, every plan will require certain changes as it is developed, and if the perennials are planted first the location of the trees will probably be changed to suit the flowers, instead of the other way around; with a final result quite different, and probably very much inferior, to what was originally intended.

A SAMPLE PLAN

To exemplify these principles in detail, suppose we have a garden to be planted. We will leave aside all consideration of trees, assuming that part

of the plan to have been settled, and study solely the composition of the hardy herbaceous border, which is the immediate subject of this book. Let us assume that our border is six feet wide, with access from one side only. It might be eight or ten feet wide if it could be reached from both sides, or it might be as narrow as four feet (less than that is hardly sufficient for perennials), but six feet is a good average. We will also assume that this border is fairly long, but for our purposes we will only consider a stretch of twenty feet, remembering, however, that it continues on at each end.



MASS PLANTING-PLAN AND ELEVATION.

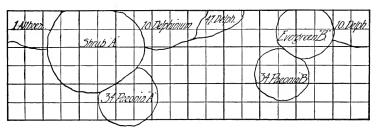


Fig. 1

The first thing to do is to get some "cross-section" paper, conveniently divided off into little squares; these we can call any size we like. In the accompanying sketches they are supposed to be one foot each way. Now having laid off our plot we proceed to plant the "big things" first. We will put down "Shrub A" and "Evergreen B" and two Peonies "A & B" grouped in a "wild regularity," and we will arrange them so that in elevation, as seen in the upper drawing, they

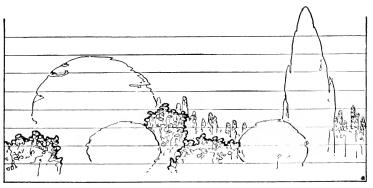
will form a pleasing mass composition (see above). Just what "Shrub A" and "Evergreen B" are does not concern us at present; all we are interested in is their size and shape, which we know will be constant throughout the season. A few evergreens, whether flowering or not, are invaluable in a border, aside from the solidity of their foliage, on account of their beauty in winter when the rest of the garden is waste. There is about them that air of enduring permanency in the ebb and flow of the flower tides which our imagination craves, and by this contrast they satisfy our artistic sensibilities. The Peonies also we locate now, for their handsome deep green foliage provides constant solid masses throughout the summer, and as our planning proceeds they can be changed to Dictamnus if it is found desirable when the question of their bloom is considered. We have already occupied about a third of our planting space with foliage, but quite aside from the fact that there are few perennials so beautiful in bloom and easy of culture as Peonies, the space could in no way be better used than for this rich setting of green.

After the shrubbery, the next thing is to consider those plants which, though not constant throughout the year, are biggest; obviously these are the tall perennials which are to be placed at the back of the border. Of these we will put in one patch of Hollyhocks (Althæa rosea) and two of Larkspur (Delphinium). The Delphinium in the central patch will grade in height by planting Delphinium Belladonna (No. 47 on the chart) at one end toward the front and at the other and behind, the taller Hybrids (No. 10 on the chart). All the varieties of Delphinium combine beautifully in color, and the varying shades of blue and violet in such a combination give much greater brilliancy than a solid mass of a single variety would. Of course the Althæa and Delphinium will not be in the height of their glory at the same time, but as we will want each in its due season we will locate them now to be sure that they are there when the proper times come.

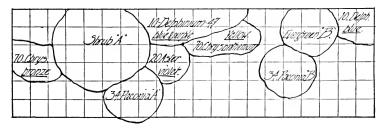
So much for our background; now let us consider month by month the changing pictures that we are to construct within and against this setting. At this point it is necessary to combat another natural tendency. Naturally one thinks of a garden first as it will be in early spring, then as it will develop through the summer and on to the coming of frost; but if we reverse this course and consider our garden first in fall and last in spring, we will arrive much more easily at our final plan. For a glance at the charts will show that flowers over four feet high are extremely rare before July, while almost everything that blooms in May or earlier is less than a foot and a half in height. Consequently if

we are to locate the tall plants first we must start with the fall and work forward. Another good reason for this method is that while many plants become unsightly after their season is past, all of them are presentable up to their time of bloom. So we can be assured that every late-blooming plant we place will present a spot of green throughout the season.

To begin then with October. The splendor of the late fall garden lies, as every one knows, in the Asters and the Chrysanthemums, so we will start with a sufficient quantity of these to form a good October composi-



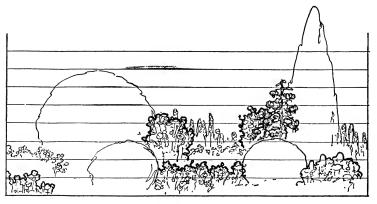
OCTOBER -- PLAN AND ELEVATION.



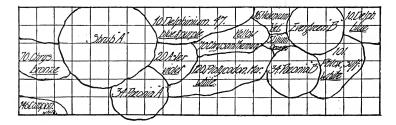
tion. The Delphinium may be blooming sparsely then, as it often does, so we will choose the blue-violet New England Aster (No. 20) to go with it, and our Chrysanthemums shall be yellow and bronze. The tall Asters are rather thin and scrawny in their lower stems, so we will tuck them in behind Peony "A" which will partially screen them. One patch of Chrysanthemums we will place where their handsome foliage will hide the Delphinium when it is cut down after its first bloom, and another will serve to shield the lower leaves of the Althæa, often brown and withered

from fungus disease. This gives us the composition in blue, violet, and gold, indicated by the sketch for October, and few gardens can show a better display at a time when frost is in the air.

Next for September. The chart shows us that of those plants already located, the Asters will be blooming throughout this month, while the Delphinium will give its second crop in the first half and the Chrysanthemums will come into bloom toward the latter half of the month; therefore we will draw these in, marking the Asters strongly in elevation and



SEPTEMBER: PLAN AND ELEVATION.

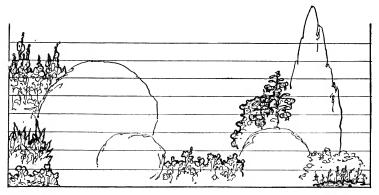


the others more lightly. Obviously this is not enough for our September picture, so to replace the gold provided in October by the Chrysanthemums we will put in a tall yellow clump between the Delphinium and the evergreen. Running down the chart under the heading September, we find No. 16, Helenium autumnale, var. superbus. This will do admirably, and to give a dash of emphasis, we will put in front a couple of bulbs of No. 5, Lilium Henryi, through whose tall orange pyramids of

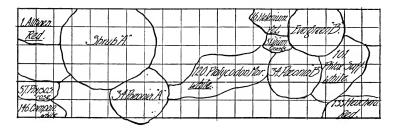
flowers the Helenium will show beautifully. In front of the Chrysanthemum we might put something blue or something white. White is especially grateful in August, which we will have to consider next, and white will help us to resolve our harmony from one of blue and gold into one of other colors. So looking down the list of plants under two and a half feet high the height of the Chrysanthemums—we find that No. 89, Achillea; No. 101, Phlox suffruticosa; No. 120, Dwarf Platycodon; and No. 146 Campanula carpatica are all white and bloom in August and September. The first two are rather high and the last one rather low, so we will choose the Platycodon, a most delightful flower, as its picture will prove to you if you are not already acquainted. The other whites we can use, too, to good advantage, so we will put the Phlox-the white variety Miss Lingard is one of the finest of all the Phloxes—around Peony "B," and the evergreen where it will not overlap anything, and the little Campanula carpatica where its dainty bells will grace the front, at the left hand of our composition. This gives enough for our September picture; white in the foreground, brilliant orange and yellow in the centre, with a suggestion of violet and blue showing toward the back. Miss Lingard, the chart says, will be blooming also in October, but her white blossoms will not harm the late fall picture in the least, and, rather, will fill up the composition on the right-hand side.

For August the chart shows us that of those we have already planted, the Althæa, the Campanula, the Platycodon, the Helenium, and the Lilium Henryi will all be in bloom throughout the month, with the Phlox producing its second crop of flowers toward the end of this period. Yellow and white are our colors. The Hollyhocks we might make also yellow, but to lead up to a change in harmony let us plant them in shades of red and pink, and put in front a patch of the pink Physostegia, leading down to the little white Hairbells in the foreground. To balance this pink tone another patch of pink in the foreground to the right would be desirable. The chart gives for low-growing pink or red flowers blooming in August, No. 135, Heuchera; No. 140, Callirhoë; and No. 164, Tunica. The Callirhoë continues into September and October, which is not altogether desirable, while the others lead us toward the spring, so either of these would be more suitable than the Callirhoë. In fact, either would be altogether suitable, but since we have to make a choice, suppose we decide on the Heuchera. That then will fill our composition for August.

July is of all the months the season of greatest bloom. The chart shows us that we have already on our plan the Althæa, Physostegia, and Campanula to the right, in shades of pink and white; in the centre the white Platycodon with the blue Delphinium behind it in its fullest glory at the beginning of the month; and to the left the coral Heuchera, with Delphinium and white Phlox also behind it at the beginning, though toward the end of the month the Heuchera will stand alone. To fill this hole we need something of middle height that will harmonize with both coral and blue. Something white would do, but better still will be the graceful pale buff spikes of the Digitalis ambigua, No. 73, so that is what we will use here.

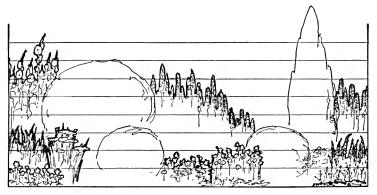


AUGUST. - PLAN AND ELEVATION.



As far as quantity of bloom goes we do not need anything more for July, but the three groups do not seem very well knit together. Suppose, therefore, we put a spot of something in front of Shrub "A" and another spot toward the front of Peony "B." White or pink these should be, and from two to three feet high. The chart shows us half a dozen or more things that we might use, and of these we will choose for the left-hand spot a clump of Japanese Iris (No. 51) which will give a strong vertical accent,

and for the other one, white peach-leaf Campanula (No. 94), the slender stems of which will not conceal the Platycodon behind, and with which its dainty white bells will accord very well. The Iris might be white also, for there are Japanese Irises, as the chart shows, which are practically white, but for a combination with the pink behind it and the two whites on either side of it, one of the deep wine-colored forms would probably be more effective; so we will decide on such a one. Our composition now consists of shades of rose and red to the left, changing through deep pur-

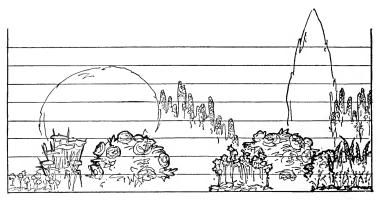


JULY- PLAN AND ELEVATION.

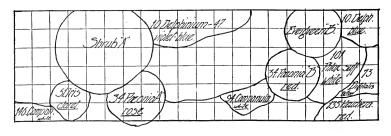
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ple-claret to blue and white in the middle, and this again is toned to the right hand by buff and a touch of coral.

June shows in bloom the Digitalis, Heuchera, and Phlox subulata on the left, throughout the month; the peach-leaf Campanula in the centre for all but the first week, and the Delphiniums, Iris, and Campanula carpatica for the latter half. This would leave the centre and left-hand side of our section of border quite bare of bloom in the first half of the month were it not for the Peonies, which, commencing in May, continue until the Iris and Delphinium are well started. And though numerically the number of plants in bloom may seem small even with this reinforcement, yet such is the magnificence of the Peonies that two good plants alone would be sufficient to make beautiful many feet of garden border. So having only a little space along the front unplanted, which we will probably need for May flowers, we will be satisfied with what we already have for June. What color our Peonies are to be is yet unde-

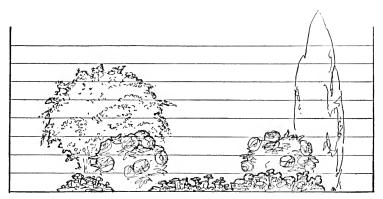


JUNE.-PLAN AND ELEVATION.

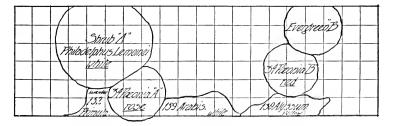


cided. I would suggest a rose pink for Peony "A" to blend with our deep claret Iris, and a rather strong red for Peony "B" to give weight to the white which surrounds it. The following pages will tell us what varieties will furnish these colors.

In May the Peonies do not commence until about the third week and none of the other things we have planted will be blooming at all, so we must at once fill in what space is still left to us. This seems to divide into three spots, all right along the front, which are therefore especially suited for plants a foot or less high. Fortunately almost all our May flowers come with this limit, so we have a considerable choice. If we decide to put in plants that will bloom in April also, as would seem wise, we narrow our choice, but there are still left plenty to fill our needs. The left-hand spot, closed in as it is by the Iris, by shrub "A," and by Peony "A," seems ideally suited for Primroses, and though these do not bloom through all of May they will last almost until Peony time. Siebold's



MAY - PLAN AND ELEVATION.



or the Polyantha Primrose may be used (No. 152, No. 153) or the splendid new hybrid, Veris superba (No. 154). If we should fill the other spaces with dwarf Phlox (No. 150) or dwarf Iris (No. 103), both violet, one of the yellow forms would be best here; but as neither the Phlox nor the Iris last till the end of May, let us use Primula Sieboldii to give our lavender in this spot, and fill the other spaces with Arabis (No. 159) and Alyssum (No. 139); white and yellow. Lavender, yellow, and white then along the

front row, with the pink and red Peonies coming in when the lavender is gone, is the composition of our May garden and, with the exception of the Peonies, of our April garden also.

One last thing we have to decide, and that is the nature of Shrub "A". What it is to be depends on when we will most need its bloom. Obviously May is this time, unless we are especially anxious to start off with a rush in April. There are several May blooming shrubs which would answer, and of these I choose the low-growing Mock Orange (Philadelphus Lemoinei), though Deutzia would serve equally well, and the beautiful bush rose, Mme. Georges Bruant, though commencing a little later, would give us white fragrant flowers until frost.

So then, as we have planned it, this little strip of border will furnish us the whole summer long, from May-day almost to Thanksgiving, with a rich display of bloom, constantly changing as the seasons pass—in mass, in color, and in form of flowers—but always complete and harmonious. And the best of it is, these plants are all perfectly hardy and year after year will greet us in their due order without any other service on our part than the cultivating, spraying and mulching, and occasional dividing which all gardens demand.

Of course this particular scheme could be varied in a great many ways. This is where individual taste and fancy come in. For example: suppose instead of Peony "B" we should decide to put in a plant of Dictamnus (No. 72), white, then; as this blooms in June and July the patch of Campanula persicifolia in front is obviously unnecessary and its place may be given to something which will help our early spring compositions. This latter must not make a high foliage growth and yet should cover the ground fairly well after its bloom is past, and it would also be well if it were a little higher than our edging plants. To all these requirements Anemone sylvestris (No. 126) answers perfectly; so with these two we have rearranged our pictures for April, May, June, and July, and in this way we might continue almost indefinitely. The great thing in any planning is to proceed in an orderly manner and to make each picture satisfactory before we proceed to the next.

After our planning is all done and the garden planted we will find in the course of the year, especially at first when our plants have not grown to full size, many spots, that may be wisely embellished with occasional annuals set in and taken out as occasion offers, and also many spots under shrubbery and among edgings where perennial bulbs may flaunt their dainty flowers to welcome the coming of the first spring days. But

all that is another matter and like the "nicknacks and drapes" about the house, must wait till the house is built and furnished before we consider them.

Lastly there is one more suggestion from the "curious Pencil of the Ever Memorable Sir Henry," which I wish to include. "Though other Countries," says he, "have more benefit of Sun than we, and thereby more properly tied to contemplate this delight; yet have I seen in our own, a delicate and diligent curiosity, surely without parallel among foreign Nations; Namely, in the Garden of Sir Henry Fanshaw, at his Seat in Ware Park; where, I well remember, he did so precisely examine the tinctures and seasons of his flowers, that in their settings the inwardest of those which were to come up at the same time should be always a little darker than the outmost, and so serve them for a kind of gentle shadow, like a piece, not of Nature, but of Art. So much of Gardens."





. .

(Named for the Greek hero Achilles, who is said to have used it to heal Telephus)

Compósitæ

17. Achillèa Eupatòrium (A. filipendulina)

English Name: Fern-leaved yarrow.

THE ORIENT JU

LARGE, slightly convex heads often five inches across, of tiny clear yellow flowers, carried on erect stems four or five feet high; foliage fernlike and rather inconspicuous. Of rather coarse and weedy ap-

pearance, and not suitable for planting in small gardens, but forming conspicuous masses of a beautiful brilliant lemon yellow which cannot be obtained with any other plant. Excellent, therefore, for garden compositions on a large scale or for naturalizing against shrubbery or in barren places.

A perfectly hardy perennial of easiest culture in any soil; prefers dry, sunny places; usually requires staking.

Propagate by cuttings, seeds, or chiefly by division in spring.



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(Named for the Greek hero Achilles, who is said to have used it to heal Telephus)

Compósitæ

88. Achillèa Millefòlium, var. ròseum

English Names: Rosy milfoil, Rosy yarrow, Thousand leaf, Thousand-leaved clover, Nosebleed, Bloodwort, Carpenter's grass, Sanguinary, Soldier's woundwort, Old-man's pepper.

S. EUROPE, ASIA, N. AMERICA

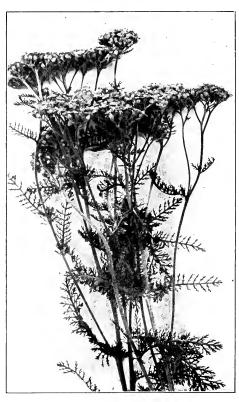
JULY THROUGH SEPTEMBER

BROAD, flat heads of tiny pink flowers, carried on erect, leafy stems one to three feet high. Foliage fernlike, dark green, pretty and persistent, though rather inconspicuous. A plant not often used in

the herbaceous border, its somewhat unrefined character, and the frequency with which it is found in a wild state, causing it to be generally classed as a weed. Properly used, however, it is effective in the herbaceous border; and is good for naturalizing in front of shrubbery or in barren places as it is not injured by drought.

A perfectly hardy perennial, of easiest culture in any soil, even poor and dry. Prefers sun.

Propagate by cuttings or by division.



(Named for the Greek hero Achilles, who is said to have used it to heaf Telephus)

Comedicate

**Comedicat

89. Achillèa Ptàrmica, var. flòre plèno, "The Pearl"

English Names: Double Sneezewort, Sneezewort yarrow, White tansy, Goose tongue, Wild pellitory, Fair Maids of France, Seven-years' love.

HORTICULTURAL VARIETY,
TYPE FROM N. TEMPERATE ZONE

MID-MAY TO MID-OCTOBER

DOUBLE flowers in small, round, snow-white balls, profusely borne on branching leafy stems, forming a mass of bloom one to two feet high. Foliage small and narrow, persistent, but rather inconspicuous.

Good for the herbaceous border on account of its profusion of bloom; and for naturalizing by the waterside. Excellent also for cutting. The flowers should be picked constantly, for when past their first bloom they turn brown and present an unsightly rusty appearance.

A perfectly hardy perennial of easiest culture in any good garden soil. Thrives best in wellwatered rich soil though it will stand a considerable amount of drought. Prefers sun.

Propagate by cuttings or by division.



(Named for the Greek hero Achilles, who is said to have used it to heal Telephus)

Composite

143. Achillèa tomentòsa

English Names: Woolly yarrow, Woolly milfoil.

THE ORIENT, EUROPE, N. AMERICA

IUNE AND JULY

SMALL bright yellow flowers borne in clusters on a neat downy matlike plant growing eight to ten inches high. Leaves feathery, evergreen, and very pretty. Excellent as an edging for the herbaceous bor-

der, though perhaps even better suited to the rock garden, as its appearance suggests a wild flower rather than a carefully cultivated garden plant. Good also for cutting

A perfectly hardy perennial of easiest culture in any soil, even though poor and dry. Will stand drought well and prefers full sun.

Propagate by cutting, by seed, or by division.



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ACONITUM

(From akoniton, the Greek name for the plant)

Ranunculàceæ

18. Aconitum Napéllus (A. pyramidàle; A. taúricum)

ENGLISH NAMES: Aconite, Monk's hood, Helmet flower, Wolf's bane, Friar's cap, Friar's cowl, Cuckoo's cap, Face in hood, Jacob's chariot, Blue rocket.

EUROPE, ASIA, AND N. AMERICA

AUGUST AND SEPTEMBER

AN ORNAMENTAL plant with large deep purple flowers of a curious helmet shape, growing in loose spikes on erect stems three to five feet high. Foliage finely divided, dark and handsome; persistent. Ex-

cellent for the herbaceous border or for naturalizing against shrubbery, preferably with light foliage; but should never be planted too near the kitchen garden or children's garden, as the root (a globular tuber), leaves, and flowers are highly poisonous. Good also for cutting.

In some localities the Aconite grows to a height of seven or more feet and has to be staked or treated as a vine; in others it barely attains a height of three feet.

A perennial which, though sometimes slow in becoming established, is perfectly hardy when once it has a firm footing. Will grow in any garden soil, but a rich moist soil is preferable. Thrives in open sun, but the flowers



will last longer in shady places. Propagate by division.

ACONITUM

(From akoniten, the Greek name for the plant)

Ranunculàceæ

19. Aconitum Napéllus, var. álbum (A. pyramidàle, var. álbum;
A. taúricum, var. álbum)

English Names: White monk's hood, White helmet flower, White wolf's bane, White aconite, etc.

EUROPE, ASIA, N. AMERICA

AUGUST AND SEPTEMBER

AN ORNAMENTAL plant with large, slightly bluish, white flowers of a curious helmet shape, growing in loose spikes on erect stems three to five feet high. Foliage finely divided, dark and handsome; persistent.

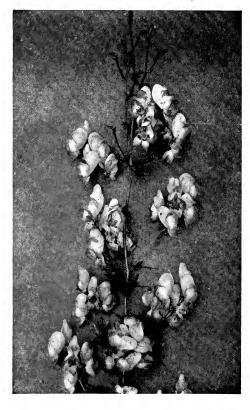
Excellent for the herbaceous border or for naturalizing against shrubbery. The root, leaves, and flowers are highly poisonous. Good also for cutting.

In northern localities the Aconitum grows considerably taller than in the south.

A perennial which, though sometimes slow in becoming established, is perfectly hardy when once it has a firm footing. Will grow in any garden soil, but a rich moist one is preferable. Thrives in open sun, but flowers will last longer in shaded places.

Propagate by division.

Var. bicolor, and var. vérsicolor, have large mixed blue-and-white flowers and are among



the few flowers of mixed colors which are altogether pleasing.

ADONIS

(Named for the favorite of Venus in Greek legend, from whose blood the flower is said to have sprung)

Ranunculàcea

133. Adónis vernàlis (A. apennina; A. Davùrica)

ENGLISH NAMES: Vernal Pheasant's eye, Spring Adonis, Ox eye, Bird's eye, False hellebore.

EUROPE

APRIL THROUGH MAY

LARGE, solitary yellow buttercuplike flowers carried on very leafy stems about one foot high. Foliage finely cut, in whorls forming dense tufts. Dies to the ground after blooming. Very lovely both in

delicacy and brillance of flower and daintiness of foliage. May be effectively used under shrubbery to give color in early spring in spots which will later be covered up. Excellent for the front of the herbaceous border or for the rock garden.

A hardy perennial of easy culture in full sun or half-shade; will grow in any good soil, but prefers a light moist earth or sandy soil, and a shady situation.

Propagate by seed sown as soon as ripe, or by root division.



AGROSTEMMA

(From the Greek agros, a field, and stemma, a garland)

Caryophyllacea

84. Agrostémma Coronària (*Lychnis Coronària; Coronària tomentòsa)

ENGLISH NAMES: Mullen pink, Dusty miller, Rose Campion, Gardener's eye.

EUROPE, ASIA

JUNE AND JULY

ARGE circular flowers, an inch and a half across, varying from white to rich crimson, borne singly on the ends of stems which fork toward the top of the plant and reach a height of one, to two and one half

feet. The leaves are long and oval, somewhat like those of the mullen: leaves and stems woolly throughout, of a pale silvery color and persistent, though after the blooming season the plant is considerably lower than when in bloom. A common plant in old gardens and very effective for herbaceous borders or for the rock garden, the flowers, especially the darker shades, forming a striking contrast with the whitish foliage.

A hardy perennial or self-sowing biennial of easiest culture in ordinary garden soil. Prefers sun.

Propagate by seed.

^{*}Name most approved by bo-



AJUGA

(From the Latin a, not, and jugare, to yoke; because the calyx is not bilabiate)

160. Ajùga réptans

English Names: Bugle, Bugle weed, Carpenter's herb, Middle comfrey, Middle consound, Sicklewort, Dead man's bellows, Helfringwort, Wild mint.

EUROPE MAY AND EARLY JUNE

MEROUS small blue flowers carried in erect spikes, from six to twelve inches high, on creeping leafy stems. Foliage oval and glossy, forming a dense ground covering. A very fast-spreading creeper

useful for covering shady

slopes.

A hardy perennial of easiest culture in any common soil; will grow in sun or shade.

Propagate by seed or by division.

Var. rûbra. More commonly cultivated than the type, on account of its dark purplish leaves; its flowers are blue like those of the type.

Var. variegata (shown in the photograph) has leaves splashed and edged with creamy yellow. Not so good as the type.



ALSTROEMERIA

(Named for Baron Alstræmer, a friend of Linnæus)

Amaryllidàceæ

85. Alstræmèria chilénsis

ENGLISH NAMES: Chilian lily, Peruvian lily.

CHILE JULY AND AUGUST

SLENDER, irregular, lilylike blossoms varying from rose to cream, carried in a loose spike on somewhat weak, leafy stems about two and a half feet high. Foliage rather slender and gravish-green, not persistent,

and should be concealed after the blooming season. Very effective in the herbaceous border or against a background of shrubbery. The flowers last well when cut.

A delicate tuberousrooted perennial which is usually hardy as far north as Washington, and with proper treatment seems regularly to survive the winters in points farther north. Should be deeply planted in a partially shaded situation. The best soil is a rather light compound of vegetable humus; or decayed cow or stable manure well worked into any light, well-drained soil do. Alstræmerias should be liberally supplied with water at all times



during growth, and in winter should be covered with leaves to a depth of eight inches or more. The surest treatment in cold climates is to lift

85. Alstræmèria chilénsis (Continued)

the tuber as soon as the foliage has died down and winter it in any place free from frost.

The tubers increase rapidly and the plant may be helped by frequent division. It may also be easily propagated by seed sown in the fall and well protected in the winter; will bloom the next summer.

ALTHAEA

(From the Greek altheo, to cure)

Malvàceæ

τ Althaèa ròsea

ENGLISH NAMES: Hollyhock, Althea Rose.

CHINA JULY AND AUGUST

LARGE, widely open single or double flowers, five inches across, and ranging in color from yellow and white through pink and red, almost to black, on a spirelike stem sometimes over seven feet high. Leaves

large, rough, irregularly round and wavy edged, mostly in a clump at the base of the plant.

An old garden favorite and unequalled for planting in rows against walls or at the back of the herbaceous border.

hardy biennial Α self-sows which so readily that it is often considered a perennial. Since the middle of the last century it has been subject to a fungous disease of such virulence that it has been excluded from many hardy gardens, and only now seems to be coming back into the favor it deserves. Thorough spraying early in the year, especially of the under side of the leaves where the disease appears as small



rust spots, is the only preventive known. Bordeaux mixture may be used or ammoniacal carbonate of copper, which will not stain the leaves.

I. Althaèa ròsea (Continued)

A sunny situation should be chosen and the ground should be deeply cultivated with a considerable quantity of rotted manure well worked in. The roots should be covered with manure in the winter, and plenty of water given in dry weather.

The single-flowered forms are handsomer than the double forms, and are usually of freer growth. The "Allegheny" Hollyhocks are a fine large-flowered strain, both single and double. There is a tendency in the double forms to be top-heavy, and all forms sometimes require staking.

Propagate by seed (will blossom the second year) or, if free from disease, from cuttings from offshoots.

ALYSSUM

(The classical Greek name, perhaps signifying "curing blindness")

Cruciferæ

139. Alýssum saxátile, var. compàctum

ENGLISH NAMES: Rock Madwort, Golden Tuft, Basket of Gold.

EUROPE APRIL AND MAY

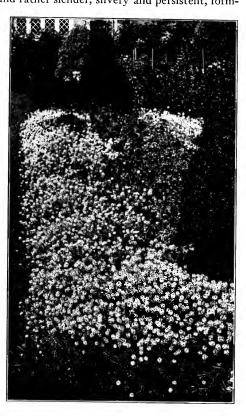
SMALL, fragrant, golden-yellow flowers in compact clusters profusely borne on low, leafy, spreading stems, woody at the base, less than a foot high. Leaves small and rather slender, silvery and persistent, form-

ing a compact spreading mat. Excellent for edging the herbaceous border or for the rock garden, on account of its neat habit and the brilliant sheet of color it forms in early spring. Good also for cutting. If the flower stems are cut back after blooming, a second crop of blossoms may be expected late in the fall or even after frost.

A perfectly hardy perennial of easiest culture, prefers well-drained soil and a sunny situation; succeeds in very dry places.

Propagate by seed, cuttings, or by division.

Var. variegātum has variegated foliage but is not so good as var. compāctum.



ANCHUSA

(From the Greek anchousa, the ancient name of the plant and also of a red dye, "Alkanet," made from the roots)

Boraginācea

31. Anchùsa itálica, var. Dropmore

ENGLISH NAMES: Bugloss (from Greek, meaning ox tongue), Ox tongue, Alkanet.

SOUTH EUROPE EARLY MAY TO MID-JULY

RUMPET-SHAPED flowers about three quarters of an inch across, of bright gentian blue in pyramidal spikes formed of many small flower clusters on short leafy stems, carried on upright, much-

branching leafy stalks, three to six feet high. The leaves are rough and glossy, of a long pointedoval· shape, sometimes two feet long at the bottom of the plant, and become unsightly after blooming. Without proper treatment the Anchusa is only a rough straggling plant with small blue blossoms, but with proper treatment it becomes a splendid bright blue pyramid, comparable to the Larkspur in brilliance, and blooming continuously for two or three months if not allowed to seed.

A hardy perennial in theory; in practice the fleshy roots become hollow as they grow old, fill with water in winter, and rot. It is best propa-



gated by root cuttings two or three inches long, which should be started, right end up, in the cold-frame in October. In the spring the young plants

31. Anchùsa itálica, var. Dropmore (Continued)

should be set out in deep, light, rich soil in a sunny situation, and well cultivated, giving plenty of water and, occasionally, liquid manure. In winter they should be mulched and covered with a little cone of earth or sand to prevent water from standing about the roots.

Anchusas will bloom the second year and, if not winter-killed, the third as well. They rarely give more than two seasons of bloom. They should be cut to the ground after blooming, fertilized, and liberally watered. They may also be propagated by seed, though not so rapidly.

Perry's var. is similar to the Dropmore var. but a little more robust.

ANCHUSA

(From the Greek απελουια, the ancient name of the plant and also of a red dye, "alkanet," made from the roots)

Βοσαειπάτεσε

32. Anchùsa itálica, var. "Opal"

English Names: Bugloss (from Greek, meaning ox tongue), Ox tongue, Alkanet.

RUMPET-SHAPED flowers about three quarters of an inch across, of forget-me-not blue, in pyramidal spikes formed of many small flower clusters on short leafy stems, carried on upright, much-branching,

leafy stalks three to six feet high. The leaves are rough and glossy, of a long-pointed, oval shape, sometimes two feet long at the bottom of the plant, and become unsightly after blooming. Without proper treatment the Anchusa is only a rough, straggling plant with small blue blossoms; but with proper treatment it becomes a splendid, bright blue pyramid, comparable to the Larkspur in brilliance, and blooming continuously for two or three months if not allowed to seed.

For cultivation see preceding page.

Anchusas rarely give more than two seasons of bloom. They should be cut to the ground after blossoming, fertilized and



liberally watered. Propagate by root, cutting (see preceding page), or more slowly, by seed.

ANEMONE

(The Greek name, anemone, the windflower, from anemos, wind)

Ranunculâceæ

60. Anemóne japónica

English Name: Japanese windflower.

CHINA, JAPAN

SEPTEMBER AND OCTOBER

BEAUTIFUL, delicate single or semi-double flowers, two to three inches in diameter, pale rose or white with yellow centres, borne on slender branching stems two or three feet high. The leaves are much

lobed and very decorative, mostly in clumps at the base of the plant. Very handsome in the herbaceous border, among shrubbery, or in clumps under trees. The flowers are excellent for cutting.

A hardy perennial of easy culture, thrives best in fresh, rather rich sandy loam, well-drained, but will do well in any garden soil if not allowed to suffer from drought in summer, and if protected with a light layer of leaves in winter. Will grow in full sun, but prefers a slight amount of shade. Unlike most perennials, it should not be disturbed when once established.

Propagate by seed or by root offshoots, best planted in the spring.



The following varieties are all excellent:

Var. álba. Single, pure white.

60. Anemóne japónica (Continued)

Var. ròsea. Single, purplish rose.

Var. rùbra. Double, red.

Var. Whirlwind. Semi-double, white.

Var. Queen Charlotte. Semi-double, pale silvery pink.

Var. Lady Ardilaun. Single, pure white, very like var àlba in flower, but having a waxy gloss to the foliage.

ANEMONE

(The Greek name, anemone, the windflower, from anemos, wind)

Ranunculàcea

126. Anemóne sylvéstris

ENGLISH NAME: Snowdrop windflower.

EUROPE, SIBER'A

MID-APRIL THROUGH JUNE

LARGE, fragrant, pure white, waxy, cup-shaped flowers, an inch and a half across, carried singly or two together on slender, nodding stems one foot to a foot and a half long. Leaves fine and deeply cut.

Excellent in clumps in the herbaceous border or under trees, on account of the delicate beauty of the flowers. Good also for cutting.

A hardy perennial of easy culture in any good soil. Will grow in sun or shade though it prefers shade. In the garden it produces so many offsets that unless these are removed occasionally the plant will deteriorate.

Propagate by division.

Var. flòre-plèno. A large double-flowered variety not so good as the type.



ANTHEMIS

(From Anthemis the Greek name for the camomile)

Composita

90. Anthemis tinctòria

English Names: Golden Marguerite, Rock camomile.

EUROPE

JUNE THROUGH SEPTEMBER

LARGE daisylike golden flowers, one to two inches across, profusely borne on vigorous bushy stems two to three feet high. Foliage finely cut, fernlike. If planted in fairly large masses it makes a

fine showing, but should always be framed by plants of strong foliage as its thin stems and delicate leaves are apt to appear straggling. Excellent for the herbaceous border and for cut flowers, especially useful for rather dry places.

A perfectly hardy perennial of easiest culture; will thrive in almost any soil, but needs full exposure to the sun.

Propagate by seed or division.

A. Kélwayi (or A. tinctòria, var. Kélwayi) has more finely cut foliage, and flowers of a deeper yellow. Excellent.



ANTHERICUM

(From the Greek anthos, a flower, and erkos, a hedge)

91. Anthéricum Liliástrum, var. májor (*Paradísea Liliástrum, var. májor)

ENGLISH NAME: St. Bruno's lily.

HORTICULTURAL VARIETY
TYPE FROM S. EUROPE

EARLY MAY THROUGH JUNE

RAGRANT, white, lilylike flowers tipped with green on the outside, two inches long and two and a half inches across, borne in loose spikes on stems two to three feet high. Foliage rushlike; leaves stiff, two feet or

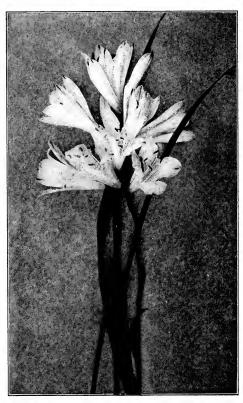
so long, springing from the root. Charming in the herbaceous border or rock garden (as might be expected from the name, which signifies "Star-lily from Paradise"). Excellent also for cut flowers.

A hardy perennial of easiest culture, growing in any garden soil in sun or shade. Requires plenty of water when in bloom, and should have a covering of leaves or litter in the winter.

Propagate by seed or by division.

The type, A. Liliástrum, of which var. májor is a horticultural variety, is similar but neither so large nor so floriferous.

^{*}Name most approved by botanical authorities.



AQUILEGIA

(From the Latin aquilegus, water-drawer, not as is commonly said from aquila, eagle)

Ranunculacea

127. Aquilègia cærùlea (A. leptocèras; A. macrántha)

ENGLISH NAMES: Rocky Mountain columbine, Long-spurred columbine.

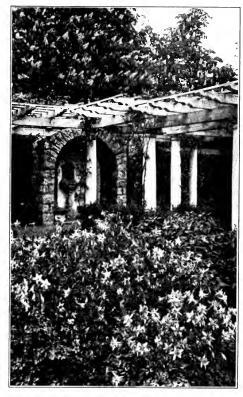
ROCKY MOUNTAINS, MONTANA TO N. MEXICO MID-MAY TO MID-JUNE

LARGE sky-blue flowers varying to whitish, two and one half to three inches across, with long, slender, slightly out-curving spurs, tipped at the end with greenish knobs; carried on branching stems one to one and a

halffeethigh. The leaves are large and handsome, divided into three-lobed leaflets, but do not last after the blooming season. Excellent massed in clumps in the herbaceous border or rock garden, and good for cutting.

Theoretically a hardy perennial, it rarely blooms more than two or three seasons and should be treated as a biennial. Of easiest culture, preferring a light sandy soil, moist but well-drained, and a sunny situation.

May be propagated by seed sown in spring, but is apt not to come true to seed if there are other varieties planted near, as all Columbines hybridize very readily.



Var. álba. Similar but entirely white.

Var. flòre-plèno. Large and showy flowers, more or less doubled, not so graceful as the type.

AOUILEGIA

(From the Latin aquillegus, water-drawer, not as is commonly said from aquilla, eagle)

Ranunculàceæ

38. Aquilègia chrysántha (A. leptocèras, var. chrysántha)

ENGLISH NAME: Golden-spurred columbine.

N. MEXICO AND ARIZONA

EARLY MAY TO EARLY AUGUST

MEROUS slightly fragrant, clear yellow flowers, two to three inches across, with rather straight, very slender divergent spurs two inches long, carried on graceful branching stems three to four

feet high. Foliage dark and handsome, divided into three-lobed leaflets, and lasting well throughout the summer. Excellent in the herbaceous border or rock garden, and good for cutting.

A hardy perennial, the most hardy of the Columbines, of easy culture, preferring a deep, moist, but well-drained, sandy loam, in a somewhat sheltered situation, but with plenty of sun.

Propagate by division or by seed, sown as early as possible.

Var. álba. Flowers very pale yellowor nearly white.

Var. Jaéschkani. A smaller plant not exceeding one and one half feet high, flowers large, yellow with red spurs,



thought to be a hybrid of A. chrysántha and A. Skínneri, hence sometimes called A. Skínneri, var. hýbrida.

AQUILEGIA

(From the Latin aquilegus, water-drawer, not as is commonly said from aquila, eagle)

Ranunculâceæ

68. Aquilègia vulgàris, var. nívia grandiflòra (A. vulgàris, var. álba, A. stellàta, A. atràta)

ENGLISH NAMES: Common European columbine, Munstead's white columbine.

HORTICULTURAL VARIFTY
TYPE FROM FUROPE AND SIBERIA

MID-MAY TO MID-JUNE

A PROFUSION of large pure white flowers with stout, much incurved spurs, knobbed at the end, carried on graceful branching stems from one and one half to three feet high. Foliage durable and handsome, divided

into three-lobed leaflets, forming a vigorous plant of compact habit. Excellent in the herbaceous border or rock garden, and good for cutting.

A hardy perennial of easy culture, preferring a light, fairly rich sandy loam, moist but welldrained, a somewhat sheltered situation, and plenty of sun.

Propagate best by seed.

A. vulgàris, the type of which A. vulgàris var. nívia grandiflòra is a horticultural variety, has given rise to a host of varieties and hybrids ranging through many peculiar shades of pink and blue. As many of these are ugly, the white form is the only one recommended; it certainly is the finest.



Var. flore-pleno is a series of much-doubled forms, of a wide range of color, not so fine as the single forms.

ARABIS

(From arabis, the Greek name meaning the "Arabian plant")

Crucifera

159. Árabis álbida (A. caucásica)

ENGLISH NAMES: White rockcress, White molewort.

VERY fragrant, pure white flowers, in small loose clusters profusely borne on stiff, erect, branching, leafless stems six to eight inches high. Leaves long-oval, scalloped along the edges, and rather thick,

growing close to the ground at the base of the flower stalks; persistent. Excellent for edgings in the herbaceous border, for rock gardens, or for covering bare places or steep banks.

A perfectly hardy perennial of easiest culture, thriving even in poor soil. Requires plenty of sun.

Propagate by seed, cuttings, and by division.

Var. variegata, a variety with gold and green variegated foliage.

Var. flòre-plèno, double flowers.

Neither so good as the type.



ARMERIA

(An old Latin name)

161. Armèria marítima var. spléndens (A. vulgàris, var. spléndens)

ENGLISH NAMES: Thrift, Sea pink, Cushion pink, Seaside thrift, Sea turf, Cliff rose, Ladies' cushion, Sea cushion, Marsh or sea daisy, French or Scawfall pink, Sea gilliflower, Sea grass.

EUROPE AND N. AMERICA ALONG THE SEACOAST

LATE MAY TO MID-JUNE

MALL pink flowers in dense globular heads an inch and a half in diameter, borne on straight, naked stalks two to twelve inches high. Foliage in rosettes of narrow evergreen leaves close to the ground.

Blooms profusely and is excellent for rock gardens and as an edging for the herbaceous border, especially on account of its low, trim evergreen foliage.

A perfectly hardy perennial of easiest culture even in poor soil. Will stand a considerable amount of drought. Prefers well-drained sandy loam and sun.

Propagate by seed or division.



ASCLEPIAS

(From Asklepios, the Greek name for Æsculapius, a legendary physician)

Asclepiadācea

92. Asclèpias tuberòsa

ENGLISH NAMES: Butterfly weed, Pleurisy root, Canada root, Indian posy, Orange root, Orange swallow wort, Tuber root, White root, Wind root, Yellow or orange milkweed.

N. AMERICA

MID-JULY TO MID-AUGUST

LARGE, fragrant clusters of brilliant yellow or orange flowers carried on erect stems two to three feet high. Leaves small, elongated oval, light in color, and not particularly conspicuous. When in bloom

one of the most gorgeous flowers in the garden, but should be cut down or hidden when bloom is past. Excellent for the herbaceous border, for planting in clumps among shrubs, and good for cutting.

One of the hardiest perennials, of easiest culture in any soil, grows well in dry banks and fields in full sun.

Propagate by division.



(From the Greek aster, star)

Compósitæ

144. Áster alpinus

English Names: Dwarf aster, Alpine aster.

EUROPE EARLY MAY TO MID-JUNE

LARGE, solitary, star-shaped flowers, bluish-purple with yellow centres, borne on small-leaved stems three to ten inches high. Larger pointed-oval leaves form handsome clusters on the ground. Excellent

for rock garden or for edging the herbaceous border.

A perfectly hardy perennial of easy culture in any ordinary soil. Will grow in sun or partial shade, but should be protected from very hot sun in summer.

Propagate by seed, or generally by divi-

Var. speciosus. Taller and stronger than the type, with large rich purple flowers three to four inches across.

Var *álbus*. Flowers pure white.

Var. supérbus. Showy free-flowering form with large bright blue flowers.



(From the Greek aster, star)

Compósitæ

69. Áster grandiflòrus

English Names: Michaelmas daisy, Starwort.

N. AMERICA

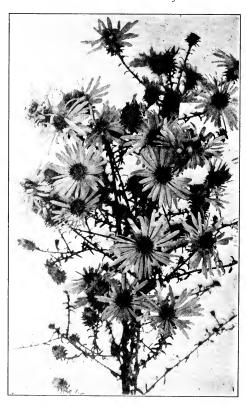
SEPTEMBER AND OCTOBER

LARGE, dark bluish-violet starlike flowers, sometimes two inches in diameter with yellow centres, freely borne on distinctive bushy plants two or three feet tall. The finest flower of the hardy Asters and

the latest to come into bloom. Excellent for the herbaceous border or for naturalizing among shrubbery.

A perfectly hardy perennial of easiest culture in any ordinary soil, even though poor and dry. It well repays careful attention, however, for planted in good soil and given plenty of moisture, very handsome specimen plants may be developed. Should have full sun.

Propagate by seed or by division.



(From the Greek aster, star)

Compósitæ

20. Áster novæ-ángliæ

English Names: New England aster, Michaelmas daisy, Starwort, Frost-flower, Good-bye-summer.

NEW ENGLAND

SEPTEMBER AND OCTOBER

STAR-SHAPED flowers an inch to an inch and a half in diameter, of various shades of bluish-violet with yellow centres, covering much-branching shrubby plants three to five feet high. Foliage coarse

and rather inconspicuous, especially at the bottom of the plant, which should be concealed by one of the lower-growing varieties. Striking in the herbaceous border or among shrubbery.

A perfectly hardy perennial of easiest culture in any ordinary soil, even though poor and dry. Responds readily, however, to good soil and moisture. Will not endure much shade.

Propagate by seed or by division.

Var. Wm. Bowman. Large rosy-purple flowers somewhat taller than the type. Excellent.



(From the Greek aster, star)

Compósitæ

21. Áster novæ-ángliæ, var. roseus

English Names: New England aster, Michaelmas daisy, Starwort, Frost-flower, Good-bye-summer.

NEW ENGLAND

SEPTEMBER AND OCTOBER

STAR-SHAPED flowers an inch to an inch and a half in diameter, of clear rose color with yellow centre, covering much-branching shrubby plants three to five feet high. Foliage coarse and rather inconspicuous,

of the plant, which should be concealed by one of the lower-growing varieties. Striking in the herbaceous border or among shrubbery.

A perfectly hardy perennial of easiest culture in any ordinary soil, even though poor and dry. Responds readily, however, to good soil and moisture. Will not endure much shade.

Var. Mrs. J. F. Raynor, taller than the type, with vivid crimson flowers.



(From the Greek aster, star)

Compósitæ

22. Áster novi-bélgii, var. F. W. Burbidge

ENGLISH NAMES: New York aster, Starwort.

N. AMERICA

SEPTEMBER AND OCTOBER

STAR-SHAPED flowers an inch in diameter, of light pinkish ravender with yellow or brownish centres, covering much-branching shrubby plants three to four feet high. Foliage rather inconspicuous but better

than that of the New England varieties; liable to mildew in cool damp weather, but without injury to the plant. Excellent for the herbaceous border, especially in front of the taller-growing varieties; or for planting among shrubbery.

A perfectly hardy perennial of easiest culture in any ordinary soil, responds readily, however, to good soil and moisture. Prefers full sun. Propagate by seed or by division.

There are many other excellent named horticultural varieties. Among the best of the pinkish shades are:

Var. Colarette. Light rose-pink, two to three feet high. Does not branch so freely as the foregoing.



Var. Elsie Perry. Small bright rose-pink flowers thickly covering the plant, about three feet high.

(From the Greek aster, star)

Compósitæ

23. Áster nòvi-bélgii, var. Top Sawyer
English Names: New York aster, Starwort.

N. AMERICA
SEPTEMBER AND OCTOBER

STAR-SHAPED flowers over an inch wide, of clear Parma-violet blue with yellow or brownish yellow centre, covering muchbranching shrubby plants four to five feet high. Foliage rather in-

conspicuous but better than that of the New England varieties; liable to mildew in cool, damp weather but without injury to the plant.

Excellent for the herbaceous border or among shrubbery.

A perfectly hardy perennial of easiest culture in any ordinary soil, even though poor and dry. Responds readily, however, to good soil and moisture. Prefers full sun. Propagate by seed or by division.

There are many other excellent named horticultural varieties; among the best are:

Var. Beauty of Colwall. Large semi-double, blue-lavender flowers, free-branching, upright habit, about four feet high.



Var. Mrs. D. Evans. Large, showy azure-blue flowers, in unusually close formation, about three feet high.

Var. Dwarf White Queen. Large pure white flowers. Plant of fine habit, about two feet high.

(From the Greek aster, star)

Compósitæ

111. Áster ptarmicoides

English Names: Bouquet star-flower, Yarrow-leaved starwort.

N. AMERICA

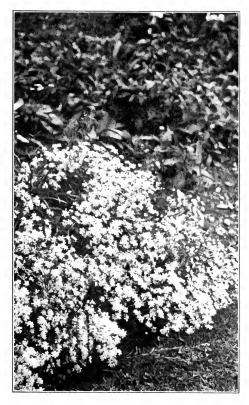
JULY AND AUGUST

MALL pure white star-shaped flowers in great profusion covering a dwarf plant of neat upright habit one to two feet high. The individual flowers are not so full or well formed as in some of the other

varieties, but the thickness with which they cover the plant makes up for the thinness in detail. Foliage finely cut and dainty. Good for the front of the herbaceous border or for cutting.

A perfectly hardy perennial of easy culture in any ordinary soil, even though poor and dry. Responds readily, however, to good soil and moisture. Prefers sun.

Propagate by seed or by division.



ASTILBE

(From the Greek a, without, and stilbe, brightness) Saxifragàcea

8. Astílbe Davídii

ENGLISH NAMES: False goat's beard, Chinese astilbe.

CHINA

JULY AND AUGUST

MALL rosy-violet blossoms in long, very showy, feathery clusters, much like those of the Spirea in form though more lax and reaching a length of two feet, borne on branching leafy stems from four to seven feet

high. Foliage compound, like that of a rose, bronzy when young, turning to a rich dark green, forming a very handsome plant. Striking in the herbaceous border or among shrubbery. Good also for cutting.

A hardy perennial of easy culture in any good garden soil. Prefers half-shade.

Propagate by division.



BAPTISIA

(From the Greek bapto, to dye, referring to the coloring matter in some species) $Legumin\delta_J \sigma$

42. Baptísia austràlis (B. cærùlea; B. exaltàta)

English Names: False indigo, Blue wild indigo, Blue rattle bush.

PENNA, SOUTH TO GA. AND N. C.

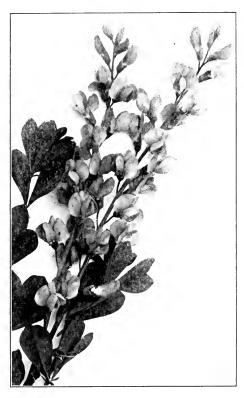
JUNE

LARGE pea-shaped blue flowers, nearly an inch in length, in long terminal spikes, rising from a bushy plant to a height of three to five feet. Foliage sea-green, roundish-oval leaves in groups of three. Lasts

in good condition through August, after which the foliage blackens. This is undoubtedly the best species of Baptisia in cultivation on account of its good habit and showy, well-colored flowers. An excellent plant for the herbaceous border, though it should always be so placed that its unsightliness in late summer will not be noticeable.

A hardy perennial of easy culture in any ordinary soil. Prefers free exposure to sun.

Propagate by seed or by division.



BELLIS

(From the low Latin bellus, pretty)

166. Béllis perénnis

English Names: English or garden daisy, Dicky daisy, Dog daisy, Childing daisy, Bairnwort, Bone flower, Bruise wort, Consound, Gowan, Marguerite.

W. EUROPE

APRIL TO EARLY JUNE

OLITARY double daisy flowers, one inch or more across, with white rays tipped with pink or red, frequently so numerous as to conceal the yellow centre; on stiff erect stems three to six inches high. Leaves

in a cluster at the base of the flower stalk, somewhat rough, spatulate, bright green, and persistent. A favorite plant for edging the herbaceous border, often used as a bedding plant and removed after blooming, as it is then apt to look rather unkempt.

A hardy perennial of easy culture, thrives in cool, moist, rich soil, and requires sun. Should be protected by a light mulch in winter.

Propagate by seed sown in the spring or by division in September.



BOCCONIA

(Named for the Sicilian botanist and author Dr. Paolo Boccone—d. 1704) $Paparer \acute{a}ce\sigma$

2. Bocconia cordàta (B. japónica)

ENGLISH NAMES: Plume poppy, Tree celandine.
CHINA, JAPAN JULY

MALL pinkish-white flowers borne in great plumy terminal masses high above the handsome foliage, on vigorous leafy stems five to eight feet tall. Leaves large, dull green, heart-shaped, and much lobed,

resembling in texture and form those of the blood root; persistent. After the blooming season the feathery effect is preserved by the terminal plumes of seeds, quite as decorative as the flowers. Excellent for the wild garden or shrubbery on account of its striking sub-tropical effect. Though extremely effective also in the back of large herbaceous borders. it is there apt to prove troublesome as it spreads very rapidly by suckers.

A perfectly hardy perennial of easiest culture; being a gross feeder it does best in very rich soil, but will grow anywhere. Requires sun.

Propagate by seed, or usually by suckers,



any one of which, if detached, will make a strong plant in a single season.

BOLTONIA

(Named from the English botanist, James Bolton, 18th century)

Compósitæ

9. Boltònia latisquàma

ENGLISH NAME: False camomile.

KANSAS, MISSOURI

LATE JULY THROUGH SEPTEMBER

LARGE, rosy-lavender, asterlike flowers with yellow centres, carried in profusion on tall, much-branching leafy stems, from three to six feet tall. Foliage bright green, pointed-oval, very like that of the Asters,

from which this plant differs only in technical characteristics. Very attractive in rough places or at the back of the herbaceous border. though it sometimes proves troublesome there as it spreads very rapidly. Excellent also for cutting. Low-growing Asters, hardy Chrysanthemums, or other suitable plants should always be planted in front, as the stems do not branch near the ground and the lower part is apt to look bare and weedy.

A perfectly hardy perennial of easiest culture in any soil, even though poor and dry, though it responds readily to good soil and does well in moist situations. Prefers sun.

Propagate by division.



CALLIRHOË

(The name of several women in Greek mythology)

Malphoon

140. Callírhoë involucràta

English Name: Poppy mallow.

MINNESOTA TO TEXAS

JULY THROUGH OCTOBER

LARGE, mallowlike flowers varying from rose to cherry-red and crimson-purple, with white centres, carried nine to twelve inches above the ground on creeping stems. Leaves rather large, round in outline,

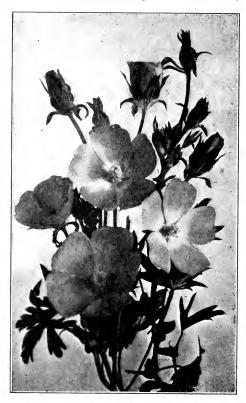
and palmately divided; persistent.

Excellent for bare places and for the rock garden, and good for the front of the herbaceous border.

A perfectly hardy perennial of easiest culture, will grow well in ordinary soil, but does best in a light rich soil. Prefers sun.

Propagate by seed, from which it will blossom the first year, also by cuttings.

Var. linearilòba. Thrives even in very dry soil, the roots penetrating to a great depth.



(From the Latin campanula, a little bell)

Campanulàceæ

145. Campánula carpática

English Names: Carpathian harebell, Bellflower.

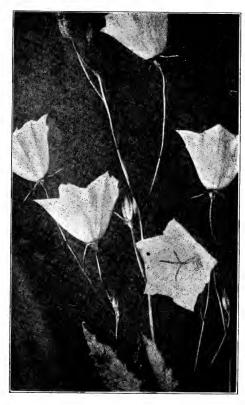
Large, erect, purple-blue cup-shaped flowers an inch and a half across, carried on delicate branching stems six to twelve inches high. Leaves pointed-oval, somewhat heart-shaped, with wavy edges, forming

very neat and dainty clumps; persistent. Unexcelled for the rock garden or for edging the herbaceous border, good also for cutting.

A hardy perennial of easy culture, especially in the Northern States, in any rich, well-drained garden soil. Prefers sun.

Propagate by seed, cuttings, or by division.

Var. turbinàta (Turban bellflower). Dwarfer and more compact than the type, with purplishblue flowers more bellshaped and often two inches across, larger leaves, and less erect habit. Excellent.



(From the Latin campanula, a little bell)

Campanulàceæ

146. Campánula carpática, var. álba

ENGLISH NAMES: White Carpathian harebell, Bellflower.

TRANSYLVANIA

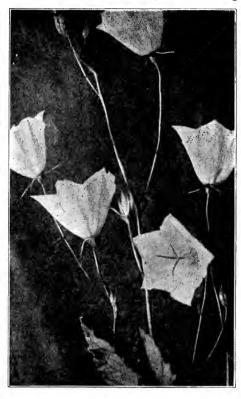
MID-JUNE TO MID-OCTOBER

LARGE, erect, white cup-shaped flowers, an inch and a half across, carried on delicate branching stems, six to twelve inches high. Leaves pointed-oval, somewhat heart-shaped, with wavy edges, forming

very neat and dainty clumps; persistent. Unexcelled for the rock garden or for edging the herbaceous border, good also for cutting.

A hardy perennial of easy culture, especially in the Northern States, in any rich, well-drained garden soil. Prefers sun.

Propagate by seed, cuttings, or by division.



(From the Latin campanula, a little bell)

Campanulàceæ

112. Campánula glomeràta

English Names: Clustered bellflower, Dane's blood.

EUROPE, ARMENIA, PERSIA, SIBERIA

JUNE AND JULY

PURPLISH-BLUE funnel-shaped flowers one inch across in dense clusters, fifteen to twenty in the terminal heads, fewer in the axillary ones, on erect stems one to two feet high. Lower leaves rough and hairy,

elongated heart-shaped, two inches long, upper ones smaller and narrower. The foliage lasts well after the blooming season, though it forms a plant considerably lower than when in bloom. Good for the front of the herbaceous border and for cutting.

A hardy perennial of easy culture in rich, welldrained loam. Prefers sun.

Propagate by seed, cuttings, or by division.

Var. dahùrica. Flowers larger and bluer than the type, in clusters three inches thick. Excellent.



(From the Latin campanula, a little bell)

Campanulacea

43. Campánula latifòlia, var. macrántha (C. macrántha)

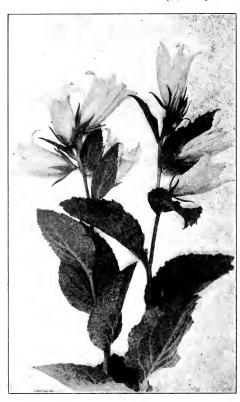
ENGLISH NAMES: Great bellflower, Coventry bells.
CENTRAL EUROPE, PERSIA LATE MAY TO MID-JULY

LARGE, erect, purple or dark blue bell-shaped flowers, two inches or more long, in a loose spike about eight inches long, of six to fifteen flowers, borne on stems three to four feet tall. Leaves large, hairy, and

heart-shaped, sometimes six inches long at the bottom, smaller and more pointed higher up. Somewhat rank in growth. Excellent for the herbaceous border and for cutting.

A hardy perennial of easy culture in rich, welldrained loam. Prefers sun.

Propagate by seed, cuttings, or by division.



(From the Latin campanula, a little bell)

Campanulàcea

44. Campánula Mèdium

ENGLISH NAMES: Canterbury bells, Marian, Mercury's violet.

S. EUROPE

EARLY JUNE TO MID-JULY

TUBULAR bell-shaped flowers one to two inches long, of blue, purple, pink, or white in a loose-spreading spike, along an erect stem one to four feet high. Leaves rather small and pointed.

An old garden plant, and probably the best known of the Campanulas. Excellent for the herbaceous border and for cutting.

Not a perennial, but a hardy biennal, flowering the second year from seed sown in the open. It may also be treated as a tender annual, the seed being sown indoors in early spring and the young plants set out in the first half of May. These will then flower well the first year, but are always better the second year. Some protection in winter is necessary.

The best soil is a rich, well-drained loam, though any garden soil will do. Prefers sun.

Var. calycánthema (cup and saucer, hose-in-

hose). A double form, in which the sepais have grown together forming a saucer similar in color and texture to the corolla, unusually interesting and attractive, and more popular though not so graceful as the type.

(From the Latin campanula, a little bell)

Campanulàcea

93. Campánula persicifòlia

ENGLISH NAMES: Peach-leaf campanula, Peach bells.

CENTRAL AND N. EUROPE

EARLY IUNE TO EARLY IULY

MANY large purplish-blue cup-shaped flowers, often an inch and a half long and two inches broad, ranging along erect stems two to three feet high, and borne above a tuft of pretty, narrow-toothed leaves

resembling those of the peach in form and size. Probably the greatest fovorite among the Campanulas, very graceful in groups in the herbaceous border, or against shrubbery, and good for cutting. If cut back it will blossom a second time.

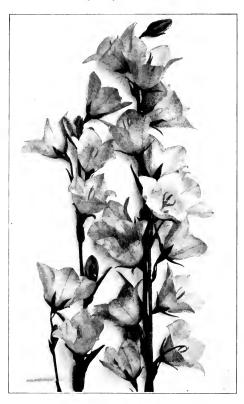
A perfectly hardy perennial of easiest culture in rich soil in sun.

Propagate by seed or by division.

There are many horticultural varieties of C. persicifòlia, a number of which are excellent. Among these are:

Var. grandiflòra, with larger flowers than the type.

Var. macrántha, a large-flowered form with flowers all along the stem.



(From the Latin campanula, a little bell)

Campanulàceæ

94. Campánula persicifòlia, var. álba

English Names: White peach-leaf campanula, White peach bells.

HORTICULTURAL VARIETY
TYPE FROM CENTRAL AND N. EUROPE

EARLY JUNE TO EARLY JULY

ANY large white cup-shaped flowers, often an inch and a half long and two inches broad, ranging along erect stems two to three feet high, and borne above a tuft of pretty; narrow-toothed leaves resembling

those of the peach in form and size. Probably the greatest favorite among the Campanulas, very graceful in groups in the herbaceous border, or against shrubbery, and good for cutting. If cut back it will blossom a second time.

A perfectly hardy perennial of easiest culture in rich soil in sun.

Propagate by seed or by division.

There are many white horticultural varieties of C. persicifòlia, a number of which are excellent. Among these are:

Var. álba grandiflòra. Very large white cupshaped flowers, one of the finest of the Campanulas.

Var. Backhõusei, double white camellia-



like flowers all along the stem, flowers much larger than the type. Var. Moerhèimi, another fine white double-flowered variety.

(From the Latin campanula, a little bell)

Campanulacea

141. Campánula rotundifòlia

English Names: English Hare bell, Hair bell, Air bell, Blue bells of Scotland, Witch's bell, Lady's or Witch's thimble.

EUROPE, SIBERIA, WESTERN N. AMERICA

IUNE THROUGH AUGUST

MALL, drooping, purplish-blue bell-shaped flowers, the flower buds being erect, borne on delicate wiry stems six to twelve inches high. The foliage is very small and inconspicuous. Naturalized in the woods,

it grows taller and more slender, often reaching a height of two feet. A very lovely little plant, well known in literature, especially suited for the rock garden and for naturalizing. It is also useful for edging the herbaceous border, but is liable to be crowded out by other plants.

A hardy perennial of easy culture in rich, welldrained loam. Prefers sun.

Propagate by seed, cuttings, or by division.



CASSIA

(An ancient Greek plant name, derived from the Hehrew)

Leguminòsæ

12. Cássia marylándica

ENGLISH NAMES: American senna, Wild senna.

NEW ENGLAND TO MICHIGAN AND SOUTH

JULY AND AUGUST

MEROUS small bright-yellow flowers, shaped somewhat like a pea blossom, with chocolate-colored anthers, in axillary clusters near the top of a handsome shrublike plant three to five feet high. The foliage

is compound and finely cut, like that of the sensitive plant, light green in color, and very attractive. After blooming the foliage dies and should be cut down or hidden by other plants.

Handsome among shrubbery or in the herbaceous border, and very valuable for naturalizing in waste places.

A perfectly hardy perennial of easiest culture, thriving even in poor soil. Will grow either in wet or dry places, its only requirement being plenty of sun.

Propagate by seed or by division.



CENTAUREA

(From the Greek kentauros, a centaur, the herb being said to have cured a wounded centaur)

Compósitæ

45. Centaurèa macrocéphala

English Names: Centaury, Hardheads, Great golden knapweed, Star thistle.

ARMENIA JULY AND AUGUST

VERY large globular bright-yellow flowers, often three to four inches in diameter, carried on unbranching, erect, leafy stems from two and one half to three feet high. Foliage handsome, leaves pointed-oval, rather

narrow, and smaller at the top than at the bottom of the plant. The most showy Centaury and probably the best. Excellent for the herbaceous border or for planting in front of shrubbery, and especially good for cutting, the flowers preserving their freshness for a long time.

A hardy perennial of easy culture in any good garden soil. Prefers sun. Propagate by seed.



CENTAUREA

(From the Greek kentauros, a centaur, the herb being said to have cured a wounded centaur)

Compositæ

105. Centaurèa montàna

ENGLISH NAMES: Perennial cornflower, Mountain bluet, Bluebottle, Bachelor's buttons, Blue bonnets, Mountain knapweed, Corn centaury, Break-your-spectacles.

EUROPE

IUNE THROUGH AUGUST

LARGE, flat blue flowers which turn purple as they grow old, two or more inches in diameter, resembling the cornflower, profusely carried on erect unbranching stems one to two feet high. The leaves are

pointed-oval and, when young, downy white. Compact dwarf plants, good for the herbaceous border and for cutting.

A hardy perennial of easy culture in any good garden soil. Prefers sun.

Var. álba. Similar to the type with white flowers. Excellent though sometimes rather grayish in color.

Var. ròsea. Similar to the type, rose-colored flowers.

Var. citrina (sul-phùrea). Flowers yellow with brown centres, not so good as the type.



CERASTIUM

(From the Greek keras, a horn, referring to the shape of the pod)

Caryophyllacex

162. Cerástium tomentòsum

ENGLISH NAMES: Snow-in-summer, Mouse-eared chickweed.

EUROPE MAY TO MID-JUNE

MALL white flowers carried about six inches high on rather weak, creeping stems. Leaves roundish-oblong, downy and silvery, whence the name "mouse-ear." Good for covering dry, sunny places, for the rock

garden, or for edging the herbaceous border. The flowers though pretty do not make much of a display; the chief value of the plant lies in its silvery foliage which preserves its freshness and neatness throughout the summer, its cool appearance being especially attractive in August.

A perfectly hardy perennial in any soil. Prefers a dry situation and full exposure to the sun.

Propagate by cuttings or by division.



CHELONE

(From the Greek chelone, a tortoise, in allusion to the resemblance of the flower to a reptile's head)

Scrophulariàeea

86. Chelòne Lýonii

English Names: Balmony, Turtle head, Turtle bloom, Shell flower, Bitter herb, Cod head, Fish mouth, Snake head.

MOUNTAINS OF NORTH CAROLINA AND SOUTH

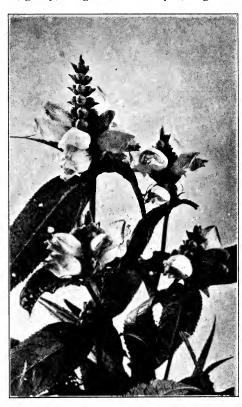
AUGUST THROUGH OCTOBER

CURIOUSLY shaped, rosy-purple flowers in dense, showy, terminal and axillary spikes, borne over two feet high on thickly growing stalks. Leaves handsome, deep green, glossy, elongated, heart-shaped, largest at

base of plant; persistent. A profusely blooming plant which forms thick clumps. Excellent for planting in moist situations and in the herbaceous border.

A hardy perennial of easy culture in good garden soil, preferably rich and moist. Prefers partial shade. In the ordinary border the roots should be covered during the growing season with a heavy mulch, four or five inches thick, of well-rotted manure. This will feed the surface roots and protect the plant from drought.

Propagate by seed, cuttings, or by division in the spring.



CHRYSANTHEMUM

(From the Greek chrysos, golden, and anthemon, flower)

Compósitæ

70. Chrysanthemum índicum and Chrysanthemum morifòlium, Garden varieties

ENGLISH NAME: Chrysanthemum.

HORTICULTURAL VARIETIES
TYPE FROM CHINA AND JAPAN

MID-SEPTEMBER
THROUGH OCTOBER

SINGLE, semi-double, or double flowers varying in size from one half inch to over two inches, and ranging in color from pure white, pale yellow and pink through orange and red to bronze and deep dark crimson.

according to variety, profusely borne on upright branching stems from two to three feet high. Leaves deeply cut and lobed, resembling the Acanthus of classic ornament, two to five inches long, deep rich green, persistent, and very handsome.

One of the finest of the hardy perennials and certainly the most necessary for the late fall garden. It is the most resistant to frost of any garden flower, and frequently may be seen in bloom after the first falls of snow. The brilliant colors and decorative foliage make it unexcelled for cutting.

The large-flowered varieties seen in the florists' windows are not sufficiently hardy for growing in the herbaceou



growing in the herbaceous border without transplanting in the winter

70. Chrysanthemum indicum and Chrysanthemum morifolium, Garden varieties (Continued)

and considerable skilled attention during the summer. There are, however, a great number of varieties which are perfectly hardy in any garden soil in sun if given a light covering of litter or leaves in winter.

In grouping Chrysanthemums care should be taken to keep those in shades of pink, crimson, lilac, etc., away from the reds, yellows, and bronzes, as the colors are often so vivid that they form very unpleasant contrasts.

The hardiest garden varieties are known as Pompon Chrysanthemums and are crosses and strains of *C. indicum* (*C. japónicum*) and *C. morifòlium* (*C. sinénse*).

Propagate by seed and by cuttings.

The following are some of the most popular varieties:

Aster or Large-flowering Pompon Chrysanthemums

WHITE

Prince of Wales. Pure white, the best of the large white forms.

Queen of Whites. Pure white, very late.

Soeur Melanie. Pure white, rather ragged petals.

YELLOW

Bohemia. Pure yellow, semi-double, petals rather large.

Globe d'Or. Clear lemon-yellow with darker shadings, bushy plant, the best of the large yellow forms.

Sir Michael. Lemon-yellow.

Sunshine. Bright golden-yellow, petals somewhat ragged.

Zenobia. Bright clear yellow, rather large and loose petals; an early bloomer.

ORANGE AND BRONZE

Allentown. Golden-bronze, semi-double, two inches in diameter.

Mrs. Porter. Lemon-yellow suffused with terra cotta, effect bronze.

Patterson. Old gold with dark shadings.

Sir Walter Raleigh. Yellow, merging into terra cotta, almost single.

Sunset. Scarlet terra cotta with yellow centre, medium-sized flower. The Czar. Golden-bronze, yellow edge.

70. Chrysanthemum indicum and Chrysanthemum morifolium, Garden varieties (Continued)

Red

Julia Lagravere. Rich dark crimson, well-formed flowers. Northumberland. Scarlet with yellow centre, single flower.

Pink

Arabella. Crimson-salmon, plant very dwarf.

Cerise Queen. Cerise-pink.

Daybreak. Soft pink.

Gloire de France. Silvery pink, cream centre.

Hijos. Primrose-pink shading to cream, the best of the large pink forms.

Salem. Silver rose, long quilled petals.

MAGENTA

King Philip. Rich crimson-magenta.

Mrs. Vincent. Rich magenta-crimson.

Button or Small-flowering Pompon Chrysanthemums

WHITE

James Boon. Pure white, good-sized flowers.

YELLOW

Baby. Clear bright yellow.

Savannah. Intense clear yellow, the best of the small yellow forms.

Tennyson. Pure yellow.

Orange and Bronze

Alice Cary. Bright orange.

Golden Pheasant. Rich yellow, reddish-brown centres, the best of the small bronze forms.

Goldfinch. Golden-yellow, shaded crimson.

Henrietta. Bronze, yellow edge.

RED

Black Douglas. Dark maroon.

Erminie. Bright orange-scarlet.

Rufus. Bright terra cotta.

70. Chrysanthemum indicum and Chrysanthemum morifolium, Garden varieties (Continued)

Pink

Dawn. Pale, soft pink shading deeper.

Dinazulu. Violet-pink.

Rhoda. Apple-blossom pink shaded white, the best of the small pink forms.

Rosinante. Blush-pink, sulphur-shading, dwarf plant.

Viola. Rich violet-rose, good-sized flowers.

MAGENTA

Little Pet. Violet-pink, very small flower.

CHRYSANTHEMUM

(From the Greek chrysos, golden, and anthemon, flower)

Composita

113. Chrysànthemum máximum

ENGLISH NAME: Giant daisy.

PYRENEES

JUNE AND JULY

LARGE white flowers with yellow centres, like large field daisies, carried from one to two feet high on the ends of upright stems which are simple, or branch at the very base, and are leafless for three to four inches

below the flower. Leaves long and narrowed at the base. An excellent and showy plant for the herbaceous border, and very good for cutting.

A perfectly hardy perennial of easy culture in rich garden soil. It should be mulched and well-watered during the growing season for best results, but will stand considerable neglect without serious harm. Prefers sun.

Propagate by seeds, cuttings, or by division.

C. "Shasta Daisy," a new and much-advertised form developed by Burbank. Very much like C. maximum in every respect; possibly a little larger in flower and of a longer blossoming season.



CLEMATIS

(From the Greek klematis, the name of some climbing plant) $Ranuncul\`{a}ce \varpi$

46. Clématis heracleæfòlia, var. Davidiàna (C. Davidiàna; C. Tubulòsa, var. Davidiàna)

ENGLISH NAME: Shrubby clematis.

CHINA AND JAPAN

AUGUST AND SEPTEMBER

MALL, china-blue, hyacinth-shaped flowers, with a fragrance like orange blossoms, borne in clusters of six to fifteen, or singly, at the ends or in the axils of erect, almost vinelike stems three to four feet high.

Leaves very large and bright green. An excellent plant for the border or rock garden, and good for cutting.

A hardy perennial of easy culture. The best soil is a deep, rich light loam which must be welldrained, and is improved by having a very little lime mixed with it. Should be enriched at least once a year with horse or cow manure, and a mulch of this late in the fall improves the plant. It is very susceptible to drought and should be well-sprayed in dry seasons. A light support should be given to the rather lax stems. Prefers sun.

Propagate by cuttings or by division.



CLEMATIS

(From the Greek klematis, the name of some climbing plant)

Ranunculaceæ

71. Clématis récta (C. erécta)

English Name: Shrubby clematis.

S. EUROPE JUNE TO MID-JULY

UMEROUS fragrant white flowers one inch across, in broad convex terminal clusters, borne two to three feet high on erect leafy stems. Probably the best shrubby Clematis for use in the herbaceous border.

A hardy perennial of easy culture. The best soil is a deep, rich, well-drained loam, which is improved by a very slight admixture of lime. Should be enriched at least once a year with horse or cow manure, and a mulch of this late in the fall improves the plant. It is very susceptible to drought and should be well-sprayed in dry seasons. Prefers sun.

Propagate by seed or by cuttings.

Var. plèna, fully doubled, buttonlike blossoms, not so good as the type.



CONVALLARIA

(From the Latin convallis, an enclosed valley)

156. Convallària majàlis

English Names: Lily-of-the-valley, Conval lily, May or Park lily, Wood lily, May blossom.

EUROPE, ASIA, S. ALLEGHENIES

MAY

MALL, white, globular, bell-like, and very fragrant flowers, hanging daintily from graceful flower stalks six to twelve inches long. The leaves grow from the base of the plant, 'are smooth, rather broad and lilylike,

and preserve their clean fresh character throughout the summer. A favorite flower for naturalizing under trees and in shady places, but excellent for ground covering or in the herbaceous border under shrubs, where, if the ground be properly enriched, it will thrive in full sun. Good for cutting.

A perfectly hardy perennial of easiest culture. Old beds are liable to run out and not flower profusely, and so should be replanted every few years, though if the soil is enriched and is given a dressing of manure every fall, the bed will thrive for four or five years. Succeeds best in partial shade.

Propagate by division in fall or early spring.



COREOPSIS

(From the Greek koris, a bedbug, and opsis, resemblance; alluding to the fruit)

Compósita

95. Coreópsis lanceolàta, var. grandiflòra English Name: Ticksced.

SOUTHERN U. S. A.

JUNE THROUGH AUGUST

LARGE, bright-yellow, daisylike flowers, one and one half to two and one half inches across, borne on sparingly branched stems one to two feet high. Foliage small and rather sparse. Excellent in masses in

the herbaceous border. where if the blossoms are kept well picked it will give a brilliant note of vellow through the greater part of the summer. It should always be planted with a setting of good foliage plants aboutit, as its long, almost leafless stems are apt to present an unkempt appearance if it stands alone. Especially good for naturalizing in barren places on account of its brilliant color and long season of bloom. Excellent also for cutting.

A perfectly hardy perennial of easiest culture in any soil. Prefers sun.

Propagate by seed or by division.



DAPHNE

(From the Greek daphne, the laurel or bay tree, named for a nymph beloved of Apollo)

Thymelæåceæ

157. Dáphne Cneòrum

English Name: Garland flower.

EUROPE

MID-APRIL THROUGH MAY

SMALL, pink, fragrant flowers with crimson buds, in many-flowered heads on long trailing branches rising six to twelve inches from the ground. Strictly speaking, not a perennial: being a dwarf shrub, with

woody stems and dense shiny dark evergreen leaves one half inch to one inch long. A most charming plant for the edge of the herbaceous border, for planting in front of shrubs, or in the rock garden. It often blooms a second time in summer.

Perfectly hardy and of easiest culture. Thrives best in light, welldrained soil, enriched with well-rotted manure; an annual top dressing of manure is of great benefit. Succeeds in half-shade or sun, or even in dry spots if once well-established.

Is best propagated by removing the earth from around the plant in spring, pegging down the branches, and filling in with fine compost almost to the tops of the



branches. On carefully removing the compost the next spring, a large number of little buds supplied with roots may be found among the branches. These may be easily detached and planted in pans or boxes.

(From the Greek name for the plant, delphinion derived from delphin, a dolphin, from a supposed resemblance in the flower)

Ranunculàcea

47. Delphinium "Belladonna"

English Names: Hybrid larkspur, Belladonna larkspur.

HORTICULTURAL HYBRIDS
TYPE FROM EUROPE

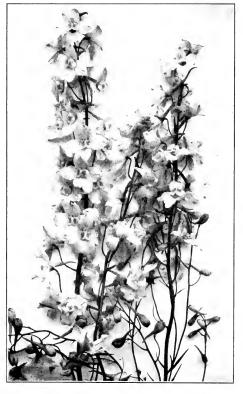
MID-JUNE TO MID-JULY EARLY SEPTEMBER, MID-OCTOBER

CURIOUSLY shaped, vivid sky-blue flowers, an inch and a half wide, with pure white centres, borne in graceful stalky spikes about twelve inches long on leafy stems from two to four feet high. Foliage

finely cut and decorative. One of the best of the hybrid Delphiniums (though rather low-growing), on account of the sturdiness of the plant, its early and long blossoming season, and the very beautiful color of the flower. Invaluable for the herbaceous border or for massing against shrubbery. Excellent for cutting.

A perfectly hardy perennial of easy culture, will thrive in any good garden soil in sun or partial shade, but does best in a deep, rich, sandy loam, exposed to the sun. The cultivation is the same as for Delphinium English Hybrids (see page 153).

Propagate by seed, cuttings, or by division;



will bloom the first year from seed sown indoors in February or March, or the following year from seed sown outdoors in August.

(From the Greek name for the plant, delphinion derived from delphin, a dolphin, from a supposed resemblance in the flower)

Ranunculàcea

10. Delphínium English Hybrids (*D. elàtum*, hybrid vars.; *D. exaltàtum*, hybrid vars.; *D. hỳbridum*, vars.)

English Name: Hybrid larkspurs.

HORTICULTURAL HYBRIDS
TYPE FROM EUROPE

MID-JUNE TO MID-JULY EARLY SEPTEMBER, MID-OCTOBER

CURIOUSLY shaped, single, semi-double, or double flowers from one to two inches across, varying through all shades from lightest blue

to dark purple, with blue, black, white, or gray centres, borne on stately and graceful spikes from one to two feet long on erect branching stems from four to eight feet high. Foliage abundant, finely cut, and decorative.

The hybrid Delphiniums are indispensable in the herbaceous border on account of their magnificent habit, the beautiful color of their flowers. and their generous bloom. They are also extremely effective in masses against shrubbery. They should always be planted against background as the flowers show rather poorly against a blue sky; unlike most flowers, the different shades of the different varieties never discordant, and a



group of changing blue tints is more iridescent and effective than one composed of a single variety. They are also excellent for cutting.

A perfectly hardy perennial of easy culture; will thrive in any good garden soil, but does best in deep, rich, sandy loam, with full exposure to the sun or in partial shade. The ground should be deeply dug and well mixed with rotted manure, the plants set about three feet apart and mulched to protect the roots from hot sun. They should be freely watered in hot weather. Every three or four years they should be taken up, divided, and reset in freshly enriched soil. Most of the varieties require staking. After blooming the plant should be cut to the ground, given a dressing of bone meal, and well-watered. It will bloom again in early September, and if the same treatment be repeated, will often bloom a third time in mid-October.

Delphiniums are liable to a blight of unknown cause. The best treatment is to spray weekly, beginning in early spring, with Bordeaux mixture or ammoniacal carbonate of copper. Also, dry Bordeaux mixture should be dug in around the crowns.

Besides the blight, Delphiniums are liable to serious injury from cutworms in the spring. These must be dugout as soon as their presence is noted, and often the plants had better be removed to new locations. Ashes scattered over the crowns in late fall will protect them from the attacks of slugs.

Propagate by seed, cuttings, or by division. Delphiniums grow with the greatest readiness from seed sown in the garden in August or indoors in February or March. In the latter case they will bloom the same year.

There are quantities of named varieties, most of which are excellent. Among the best are:

Beatrice Kelway. Cornflower blue, flushed with rose, white eye, massive spikes.

Geneva. Large flowers, pale porcelain blue, pure white eye.

Julia. Large flowers, cornflower blue veined with rose, white eye.

King of Delphiniums. Large semi-double, gentian-blue flowers with large white eye, in massive spikes; plant of strong growth and fine habit.

Lizzie. Large azure-blue flowers with yellowish eye; plant very tall and strong growing.

Mme. Fiolet Geslin. Round, semi-double flowers, outer petals clear blue, inner ones lavender, white eye.

Perfection. Very large sky-blue flowers flushed with rose, dark eye. Queen Wilhelmina. Large flowers, soft lavender-blue flushed with rose, conspicuous white eye.

Rembrandt. Semi-double, sky-blue, inner petals rosy-lavender, silvery sheen.

Rev. E. Lascelles. Very large double flowers, deep purple-blue with white centre edged with blue, one of the largest varieties both in height of plant and size of flowers.

(From the Greek name for the plant, delphinion derived from delphin, a dolphin, from a supposed resemblance in the flower)

Ranunculàceæ

48. Delphínium formòsum (D. cheilánthum, var. formòsum)

ENGLISH NAME: Oriental larkspur.

POSSIBLY ASIA MINOR

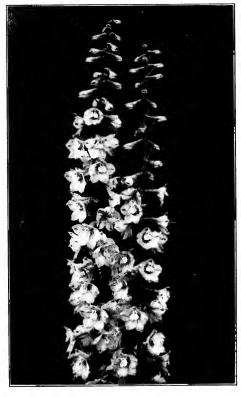
MID-JUNE TO MID-JULY EARLY SEPTEMBER, MID-OCTOBER

CURIOUSLY shaped flowers of brilliant deep blue with white centres and long violet spurs, in loose spikes about a foot long on a rather tangled branching plant from two to four feet high. Foliage rich dark

green, finely divided, and handsome. In flower one of the finest of the Delphiniums, but in habit rather poor, having neither the height nor the sturdiness of the hybrid varieties. Excellent for the herbaceous border, and the most permanent variety for naturalizing. Extremely fine also for cutting.

A perfectly hardy perennial of easy culture, will thrive in any good garden soil, but does best in a deep, rich, sandy loam, in sun or partial shade. The cultivation is the same as for Delphinium English Hybrids (see page 153).

Propagate by seed, cuttings, or by division; will bloom the first year from seed sown indoors



in February or March, or the year following from seed sown outdoors in August.

(From the Greek name for the plant, delphinion derived from delphin, a dolphin, from a supposed resemblance in the flower)

Ranunculacea

96. Delphínium sinénse (D. chinénse; D. grandiflòrum, var. chinénse)

ENGLISH NAME: Chinese larkspur.

SIBERIA

MID-JUNE TO MID-JULY EARLY SEPTEMBER, MID-OCTOBER

CURIOUSLY shaped, clear gentian-blue flowers, often tinged with violet, with long pointed spurs; in long, rather loose spikes on slender, slightly branching stems one to two feet high. Leaves rather

small, very finely divided. An excellent plant for the herbaceous border and for cut flowers, the flowers being very freely produced.

A perfectly hardy perennial of easy culture, will thrive in any good soil, but does best in a deep, rich, sandy loam, in sun or partial shade. The cultivation is the same as for Delphinium English Hybrids (see page 153).

Propagate by seed, cuttings, or by division; will bloom the first year from seed sown indoors in February or March, or the year following from seed sown outdoors in August.



(From the Greek name for the plant, delphinion derived from delphin, a dolphin, from a supposed resemblance in the flower)

Ranunculàcea

97. Delphínium sinénse, var. álbum (D. chinénse, var. álbum D. grandiflorum, var. chinénse álbum)

ENGLISH NAME: White Chinese larkspur.

SIBER1A

MID-JUNE TO MID-JULY EARLY SEPTEMBER, MID-OCTOBER

CURIOUSLY shaped, pure white flowers with long pointed spurs, in long, somewhat loose spikes on slender, slightly branching stems, one to two feet high. Leaves rather small, very finely divided. An

excellent plant for the herbaceous border and for cut flowers, especially valuable as being the only pure white Delphinium, with the exception of certain new and expensive English hybrids.

A perfectly hardy perennial of easy culture, will thrive in any good garden soil, but does best in a deep, rich, sandy loam, in sun or partial shade. The cultivation is the same as for Delphinium English Hybrids (see page 153).

Propagate by seed, cuttings, or by division; will bloom the first year from seed sown indoors in February or March or the year following from seed sown outdoors in August.



DIANTHUS

(From the Greek dios, divine, and anthos, a flower)

Caryophyllàcea

128. Diánthus barbàtus, vars.

English Names: Sweet William, Bunch pink, Blooming down, London pride, London tuft, Snowflake, Sweet John.

CENTRAL AND S. EUROPE

MID-MAY THROUGH JUNE

SINGLE and double round flat flowers, an inch to an inch and a half in diameter, very variously colored and marked, in shades of white, pink, and crimson, borne in dense rounded terminal heads of twenty to

thirty flowers and often four inches across, on leafy erect stems from ten to eighteen inches high. The foliage is simple, rather broadly pointed, and clean looking when young, but after blooming the plant becomes decidedly shabby.

An old garden favorite, and popular at the present day, perhaps more for its association than for its qualities. The single whites, true pinks, and dark crimsons make fine spots of color in the herbaceous border, but the magentas must be carefully avoided, and many of the parti-colored varieties are ugly. The double flowers last longer but are rather clumsy in form. Excellent for cutting.



Theoretically, the plant will last several years, but the second year is by far its best blooming season, so that it is usually treated as a biennial,

128. Diánthus barbàtus, vars. (Continued)

seeds being sown in July for bloom the following year. One or two plants of the best colors should be allowed to seed (a paper bag tied over the head marks the plant and protects and collects the seed) and the rest should be cut down or pulled up immediately after blooming. The bare spot left before the new seedlings have made their first year's growth is rather difficult to conceal, as Dianthus is necessarily planted in the front of the border. Of easiest culture, thriving in any soil, even clay or sand, and in full exposure to the sun; is little the worse for drought.

Propagate by seed.

DIANTHUS

(From the Greek dios, divine, and anthos, a flower)

Caryophyllàcea

147. Diánthus latifòlius, var. atrococcíneus flòre-plèno

English Name: Broad-leaved pink.

HORTICULTURAL VARIETY

JUNE AND JULY

LARGE double flowers, about an inch across, of deep crimson-scarlet, in tight clusters, on upright stems six to twelve inches high. Foliage rather broadly pointed and bright green. A hybrid variety of doubt-

ful origin, possibly a cross between Diánthus chinénsis and Diánthus barbàtus, having the flower habit of the former and the plant habit of the latter. Excellent for the front of the herbaceous border, not quite so showy as the Sweet William, but with a much longer blooming season and more hardy. Very good also for the rock garden and for cutting.

A hardy perennial of easy culture in any welldrained soil, even sand. Does best in rich, light loam, in full sun; resists drought well.

Propagate best by seed or by division. Will bloom the first year from seed.



DIANTHUS

(From the Greek dios, divine, and anthos, a flower)

Caryophyllàceæ

148. Diánthus plumàrius, vars.

English Names: Garden pink, Pheasant's eye pink, Scotch pink, Common grass pink.

AUSTRIA, SIBERIA

MID-MAY TO MID-JUNE

SINGLE or double fringed carnationlike flowers, about an inch across, with the fragrance of cloves, terminally borne on rather soft erect stems six to twelve inches high, above a dense tuft of grasslike silvery

bluish green leaves. One of the best plants for edging the herbaceous border, because of its neat and persistent foliage, which is excellent even in winter. Good also in the rock garden and for cutting.

A perfectly hardy perennial of easiest culture in any gardensoil and in full sun; will endure a considerable amount of drought. Should be divided about every three years.

Propagate by seed or by division.

Among the best named varieties are:

Carmen. Double, clear light pink, fragrant flower.

Her Majesty. Large and very double, pure white, very fragrant flowers, long season of blooming.

very fragrant flowers, long season of blooming.

Mrs. Sinkins. Large, pure white, fragrant flowers.

Napoleon III. Intense blood-crimson, fragrant flower, blooming freely from June to October.

Perpetual Snow. Large, double, white, delicately scented flowers, fine habit.



DICENTRA

(From the Greek dis, double, and kentron, spurred, originally misspelled Diclytra and supposed to be Diclytra)

Fumariàces

98. Dicéntra spectábilis (Diélytra spectábilis)

English Names: Bleeding heart, Seal flower, Lady's reticule.

JAPAN EARLY APRIL THROUGH JUNI

DEEP rosy-red, flat, heart-shaped flowers with protruding white inner petals. hanging delicately along graceful arching stems one to two feet high. Foliage deeply cut and handsome, but not persistent. The

plant must be cut down or hidden after the flowering season. A very dainty and charming flower, and a great favorite in old-fashioned gardens. Excellent for the herbaceous border or for naturalizing in the wild garden.

A perfectly hardy perennial of easiest culture in moderately rich, light loam. Will grow in sun or shade, but thrives best in partial shade.

Propagate by division of crown or roots.

Var. álba. Has white flowers, but a weak and sickly habit.



DICTAMNUS

(From the Greek name for the plant Diktamnos, from Dikte, a mountain in Crete where the plant abounds)

Rutàcea

72. Dictámnus Fraxinélla var. álbus (*D. álbus; Fraxinélla álba; Fraxinélla Dictámnus)

English Names: Gas plant, Burning bush, Dittany, Fraxinella, Garden ginger.

EUROPE, NORTH ASIA

JUNE AND JULY

RAGRANT white flowers in long showy terminal spikes rising to a height of two to three feet above a vigorous, upright bushy plant. The abundant foliage is a rich, dark leathery green, with oil glands dotting

the leaves, retained in perfect condition throughout the season. Excellent for the herbaceous border as it forms a permanent, handsome, solid, dark green mass, and in blooming season the flowers are very effective. It is sometimes even used as an informal hedge. The flowers are excellent for cutting. The leaves in still hot weather give off a volatile lemonscented oil which will ignite in a puff of flame if a match be held near.

A perfectly hardy perennial of easiest culture. Prefers a strong, rather heavy, and moderately rich soil, and should rarely be disturbed, as the plants improve with age and will flourish in one spot for a great many



^{*} Form of name most approved by botanical authorities.

72. Dictámnus Fraxinélla var. álbus (Continued)

years. Will thrive in sun or half-shade and is not affected by drought when once well-established.

Propagate by seed sown in the open ground as soon as ripe or with difficulty by division. Will blossom the third year from seed.

There are several varieties, with flowers ranging from rose to deep maroon or chocolate color, equally good in habit and interesting for cut flowers. The best is var. *rùbra*, but the white-flowered type is more showy in the border.

DIGITALIS

(From the Latin digitus, a finger, referring to the shape of the flower) Semophulariacex

73. Digitàlis ambígua (D. grandiflòra; D. ochroleùca)

English Names: Yellow foxglove (originally Folk's glove, alluding to the "little folk" or faeries), Thimbles, Fairy cap, Fairy fingers, Fairy thimbles.

EUROPE, WESTERN ASIA

JUNE AND JULY

LARGE tubular flowers two inches long, buff-yellow with brownish markings, drooping in terminal spikes sometimes two feet long on strong upright stems reaching a height of two to three feet. The leaves,

mostly in clumps on the ground, are rather long pointed-oval, of a light green color. Excellent in groups in the herbaceous border or planted against shrubbery; not so striking as *D. purpùrea*, but with the advantage of being a perennial and of blooming more or less constantly throughout the summer if cut back.

A hardy perennial of easy culture. Thrives best in light, rather moist and rich loam, in sun or partial shade.

Propagate by seed or by division.



DIGITALIS

(From the Latin digitus, a finger, referring to the shape of the flower)

Scrophulariaceae

49. Digitàlis purpùrea, var. gloxiniæflòra (D. gloxiniæflòra; D. gloxinòides; D. tomentòsa, var. gloxiniæflòra)

ENGLISH NAMES: Foxglove (originally Folk's glove, alluding to the "little folk" or faeries), Thimbles, Fairy cap, Fairy fingers, Fairy thimbles, Fairy bells, Dog's fingers, Finger flower, Lady's glove, Lady fingers, Lady's thimble, Pop dock, Flap dock, Flop dock, Lion's mouth, Rabbit's flower, Cottages, Throatwort, Scotch Mercury.

EUROPE

JUNE TO MID-JULY

LARGE tubular flowers, two inches long, varying from deep pinkish purple to white, usually spotted with purple, drooping in long pointed terminal spikes a foot and a half long on strong upright stems, which

reach a height of two to four feet. The leaves are large, sometimes a foot long, roundly elongated and downy, in a clump at the base of the plant. A very effective plant in the herbaceous border when in bloom, but rather unkempt looking while seeding; good in masses against shrubbery.

The pure white flowered form, D. purpurca, var. gloxiniaflòra álba, is the best variety, as the purples and pinks are apt to be of rather dirty color.

Sometimes a perennial, but usually a biennial; of easy culture. Thrives best in light, rather moist, and rich loam, in sun or partial shade. If the seed is allowed to ripen in order to self-sow,



49. Digitàlis purpùrea, var. gloxiniæflòra (Continued)

the plant should be concealed by some other tall growing perennial. Otherwise, it should be cut down after blooming and fresh seed sown.

Propagate by seed.

DORONICUM

(A Latinized Arabic name)

Compósitæ

61. Dorónicum plantagineum, var. excélsum (D. excélsum "Harper Crewe")

English Name: Leopard's bane.

EUROPE

MID-APRIL THROUGH MAY

MEROUS yellow daisylike flowers, sometimes three inches across, borne terminally on sturdy hairy stems one and a half to three feet high. Foliage mostly in a crown at the base of the plant.

Good in masses in the herbaceous border and excellent for cutting. A very valuable plant for border compositions on account of its early season of bloom; daisylike flowers being exceedingly rare before late May.

A hardy perennial of easiest culture in ordinary soil though it thrives best in rich loam, with full exposure to the sun.

Propagate by division.



ECHINACEA

(From the Greek echinos, a hedgehog, alluding to the spiny backs of the receptacle)

Compósitæ

50. Echinàcea purpùrea (Rudbéckia purpùrea)

ENGLISH NAMES: Purple cone flower, Black Sampson.

VIRGINIA AND OHIO TO ILLINOIS AND LOUISIANA

JULY THROUGH OCTOBER

LARGE daisylike flowers sometimes five inches across, varying from rosy-purple to light rose, with high-pointed purple central cone; freely borne on a compact, bushy, rather coarse plant from two to three

and a half feet high. Excellent for the herbaceous border and good for cutting.

A perfectly hardy perennial of easiest culture in any garden soil. May be used to cover dry and waste spots but responds well to rich soil, especially sandy loam. Prefers full sup.

Propagate by seed or not too frequently by division.

Var. serótina (E. intermèdia), a later-flowering variety, with brighter colored, broader, and flatter petals; possibly better than the type.



EUPATORIUM

(From eupatorion, the Greek name for the plant Agrimony, named for Mithridates Eupator)

Composite

106. Eupatorium cœlestinum (*Conoclinium cœlestinum)

ENGLISH NAME: Mist flower.

EASTERN U. S. A.

SEPTEMBER AND OCTOBER

SMALL blue or violet flowers in compact flat-topped clusters on somewhat downy leafy stems from one to two feet high. Leaves of a long pointed heart-shape, toothed along the edges. An excellent plant

for the front of the herbaceous border. The dainty heliotropelike flowers being very charming in late fall.

A hardy perennial of easy culture in ordinary garden soil, in sun. Should be given a light covering of litter or leaves in winter.

Propagate by cuttings.

^{*}Name most approved by bo-



FUNKIA

(Named for Ludwig P. Funke, 1755-1807, and H. C. Funke, 1771-1839, German naturalists)

Liliaceae

114. Fúnkia subcordàta, var. grandiflòra (F. grandiflòra; F. álba, var. grandiflòra; F. liliiflòra, var. grandiflòra; F. japónica; F. macrántha; F. cordàta; Hemerocállis álba; H. cordàta; H. japónica; H. plantaginèa)

ENGLISH NAMES: Plantain lily, White day lily, Corfu lily.

MID-AUGUST TO MID-SEPTEMBER

LARGE, very fragrant, waxy, white, tubular lilylike flowers, four to six inches long, borne on spikes one to two feet high, above dense clumps of very large, heart-shaped, shiny, light green leaves. Good to

form solid masses in the herbaceous border, or in front of shrubbery, and often used along walks in old-fashioned gardens.

A perfectly hardy perennial of easiest culture in deep, rich moist soil. Will grow in sun or shade but thrives best in partial shade. If not given plenty of water in midsummer the leaves are liable to burn at the edges and become unsightly. The clumps improve with age and should not often be disturbed.

Propagate by division or by seed sown as soon as ripe.



FUNKIA

(Named for Ludwig P. Funke, 1755-1807, and H. C. Funke, 1771-1839, German naturalists)

Liliarea

129. Fúnkia undulàta, var. variegàta (F. lancifòlia, var. variegàta; F. japónica, var. variegàta)

ENGLISH NAMES: Plantain lily, Lilac day lily,
JAPAN MID-JULY THROUGH AUGUST

PALE lilac tubular flowers, one and one half inches long, in rather loose spikes of six to ten flowers, rise from thick persistent clumps of narrow, variegated, wavy-edged leaves sometimes six inches long by two

inches wide, to a height of one to two feet. Excellent for planting in the herbaceous border or in front of shrubbery; one of the few really good variegated foliage plants.

A perfectly hardy perennial of easiest culture in deep, rich moist soil. Will grow in sun or shade but thrives best in half-shade. The clumps improve with age and should not often be disturbed.

Propagate by division or by seed sown as soon as ripe.

F. lancifòlia is similar in flower and habit, except that the leaves are flat and not variegated. A good form.



GAILLARDIA

(Named for M. Gaillard, French botanist)

Compósitæ

99. Gaillárdia grandiflòra (G. aristàta, var. grandiflòra; G. lùtea; G. máxima; G. perénnis)

ENGLISH NAME: Blanket flower.

WESTERN U. S. A.

JUNE THROUGH OCTOBER

LARGE daisylike flowers, sometimes over three inches across, with rather full petals, ranging from brilliant yellow at the tips to red or maroon toward the centre, profusely borne on strong erect stems two to three feet

high. Foliage rather deficient. Valuable for massing in the border on account of its brilliant coloring, profuse flowering, and long season; continuing to bloom even after frost. Should always be planted in a setting of good foliage plants to compensate for its own lack of leaves. Excellent for cutting.

A perfectly hardy perennial of easiest culture in any light, well-drained soil, even though poor and dry. Should be given full exposure to sun and air.

Propagate by seed, by cuttings, by division in August or September, or by root cuttings in early spring. Will bloom the first year from seed, but does not come true to parent.



GALTONIA

(Named for Francis Galton, a distinguished anthropologist)

Liliàceae

24. Galtònia cándicans (Hyacinthus cándicans)

English Names: Cape hyacinth, Giant summer hyacinth.
s. africa July and august

RAGRANT, white, funnel-shaped, pendulous flowers, like large snow-drops, in a spike nine to twelve inches long, terminating on erect stems from three to five feet high. The foliage is clean and strong and re-

sembles that of the Hyacinth, except that it is much larger. Almost the only Cape bulb that can be considered hardy in the northern United States. Very effective in the herbaceous border against a good background, or planted against shrubbery.

A hardy perennial of easy culture in light, rich moist soil, in sunny or partially shaded situations. In cold climates it should be protected with a heavy mulch in winter. In suitable situations the plant will improve steadily for several years.

Propagate by offsets or, slowly, by seed.



GERANIUM

(From geranion, the Greek name for the plant derived from geranos, a crane, in allusion to the "beak" of the fruit)

Gerániacea

115. Gerànium sanguíneum

English Names: Crane's bill, Wild geranium, Stork's bill, Dove foot, Old-maid's night-cap, Shame-face.

W. ASIA, EUROPE

MID-JUNE THROUGH JULY

LARGE, wide-open, nearly crimson, five-petaled flowers, borne on erect somewhat branching stems about a foot and a half high. Leaves rather large, deeply divided, and borne on short stems. Good in the her-

baceous border, rock garden, or for naturalizing in waste places. The best of the cultivated Geraniums (the so-called "Geranium" of pot culture being really Pelargonium).

A perfectly hardy perennial of easiest culture, thriving in any ordinary soil, in sun or partial shade.

Propagate by seed and division.

Var. *álbum* is similar to the type but with flowers grayish white, not a very good color.



GEUM

(From the Greek geno, "to have a taste" referring to the root)

134. Gèum Héldrichi (G. chiloénse)

English Name: Avens.

HORTICULTURAL VARIETY, TYPE FROM CHILE

LATE MAY THROUGH HINE

WIDE-OPEN, five-petaled flowers, about an inchin diameter, of a brilliant red-orange with bright yellowstamens, borne in clusters on an upright stem from nine to eighteen inches high. The leaves mostly close

to the ground, somewhat the shape of dandelion leaves, long and roughly three-lobed with the terminal lobe rounded. Excellent for the rock garden or the herbaceous border. Good also for cutting.

A perfectly hardy perennial of easy culture in any garden soil, preferably moist. Prefers a sunny situation.

Propagate by seed or by division.

Different varieties grown close together will hybridize readily.

There are a number of named horticultural varieties, almost all of which are good. Among the best are:

Var. atrosanguineum. Deep crimson, double flowers, tall growing.



Var. coccineum. Brilliant orange-scarlet, single flowers.

Var. coccineum flòre plèno, Mrs. J. Bradshaw. Large, bright scarlet double flowers with a long season of bloom; very fine.

GYPSOPHILA

(Frem the Greek gypsos, chalk, and philos, loving, because it thrives in chalky ground)

Caryophyllàceα

62. Gypsóphila paniculàta

English Names: Baby's breath, Chalk plant, Mist.

EUROPE

JULY AND AUGUST

A PROFUSION of tiny white flowers covering a much-branching and spreading plant, two to three feet high, producing a mistlike effect. Leaves narrow and pointed, rather deficient. Excellent in the herba-

ceous border or for covering dry and unkempt places. Good also at the base of shrubbery and extremely popular for trimming bouquets on account of its dainty lasting flowers and stiff wiry stems.

A perfectly hardy perennial of easiest culture in any garden soil in a rather dry, open, and sunny situation.



GYPSOPHILA

(From the Greek gypsos, chalk, and philos, loving, because it thrives in chalky ground)

Caryophyllacea

168. Gypsóphila rèpens (G. prostràta)

English Names: Creeping chalk plant, Baby's breath.

ALPS AND PYRENEES

JUNE AND JULY

A PROFUSION of small flowers, rose or pinkish white, in graceful heads covering slender, trailing, and branching stems which rise at the end to a height of about six inches. Leaves smooth, sharply pointed,

and light green. Good for edging the herbaceous border and especially suited to the rock garden.

A perfectly hardy perennial of easiest culture in any garden soil, in a rather dry, open, and sunny situation.



HELENIUM

(The Greek name for the elecampane, possibly from Helenus, son of Priam) Comp'osita

13. Helènium autumnàle, var. rùbrum (H. grandiflòrum, var. rùbrum)

English Names: Red sneezewort, Red sneezeweed, Swamp or False sunflower, Ox eye.

NORTH AMERICA

JULY AND AUGUST

UMEROUS daisylike flowers, one to one and a half inches across, with drooping rays of a red terra-cotta color and maroon-and-gold centre. Borne in large heads on strong, roughish, leafy stems, branching at

the top, from two to six feet high. Leaves small, smooth, pointed, and toothed. Showy and effective in masses in the back of the herbaceous border or planted against shrubbery. Good also for cutting.

A perfectly hardy perennial of easiest culture in any soil. Thrives best in moist, rich soil with full exposure to the sun. The roots are sometimes attacked by a white aphis, and if the plants appear unhealthy they should be lifted, the roots washed with an insecticide, and reset in a new place.



HELENIUM

(The Greek name for the elecampane, possibly from Helenus, son of Priam) $Comp\acute{o}rit\sigma$

16. Helènium autumnàle, var. supérbum (H. grandiflòrum, var. supérbum)

English Names: Sneezeweed, Sneezewort, Swamp or False sunflower, Ox eye, Yellow star.

NORTH AMERICA

AUGUST AND SEPTEMBER

UMEROUS daisylike flowers an inch and a half across, with drooping lemon-yellow rays and hemispherical yellow centre, borne in large heads on sturdy, roughish, leafy stems, branching at the top, from

four to six feet high. Leaves small, smooth, pointed, and toothed, almost hidden by the flowers. Very effective in the herbaceous border or for planting among shrubbery, giving a solid mass of brilliant color. Good also for cutting.

A perfectly hardy perennial of easiest culture in any soil. Thrives best in moist, rich soil with full exposure to the sun. The roots are sometimes attacked by a white aphis, and if the plants appear unhealthy they should be lifted, the roots washed with an insecticide, and reset in a new place.



HELENIUM

(The Greek name for the elecampane, possibly from Helenus, son of Priam)

63. Helènium Hoòpesi (H. autumnàle, var. Hoòpesi)

English Names: Sneezeweed, Sneezewort, Swamp or False sunflower, Ox eye, Yellow star.

WESTERN NORTH AMERICA

MID-MAY TO MID-JUNE

LARGE daisylike flowers, about three inches across, with very slightly drooping orange rays and yellow centre, borne in heads of several long-stalked flowers on stout, somewhat coarse, leafy stems one to three

feet high, branching at the top. Leaves small, narrow, and toothed.

Perhaps the most valuable species of Helenium for general planting. Excellent for the herbaceous border and for cutting.

A perfectly hardy perennial of easiest culture in any soil, but does best in rich, moist soil, in a sunny situation. The roots are sometimes attacked by a white aphis, and if the plants appear unhealthy they should be lifted, the roots washed with an insecticide, and reset in a new place.



HELIANTHUS

(From the Greek helios, the sun, and anthos, a flower)

Compósitæ

25. Heliánthus mòllis

ENGLISH NAME: Hairy sunflower.

OHIO TO GEORGIA, WEST TO IOWA AND TEXAS

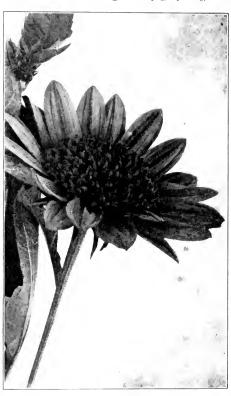
MID-IULY TO MID-SEPTEMBER

Leaves pointed-oval, from three to five inches long, downy grayish green.

A very trim and decorative plant, the best of the perennial Sunflowers for the herbaceous border; should be planted at the back and with a southern exposure, so that the flowers will face forward. Also excellent for planting among shrubbery or in waste places, and good for cutting.

A perfectly hardy perennial of easiest culture in any soil, doing well even in barren spots. Requires sun.

Propagate by seed or by division.



HELIANTHUS

(From the Greek helios, the sun, and anthos, a flower)

Compósitæ

26. Heliánthus multiflòrus, var. Soleil d'Or (*H. decapétalus, var. multiflòrus Soleil d'Or)

ENGLISH NAMES: Double hardy sunflower, Wild sunflower.

HORTICULTURAL VARIETY, TYPE FROM N. AMERICA

MID-JULY TO MID-SEPTEMBER

LARGE, somewhat double, yellow flowers with quilled petals, like a cactus Dahlia, about three inches across, borne in profusion at the ends of branching stems on leafy plants two to five feet high. Leaves rough, pointed-

oval, and saw-edged, three to eight inches long. Excellent for planting among shrubbery or for naturalizing, good also for cutting. Very effective in the herbaceous border, but spreads rapidly and is sometimes difficult to keep under control.

A perfectly hardy perennial of easiest culture in any light, dry soil in full sun. Every two years in late fall or early spring the plant should be divided and replanted, or the flowers will deteriorate and tend to become single, as they will do also in very poor soil.

Propagate by division. Var. multiflòrus flòreplèno. Similar to "Soleil d'Or" except that the double flowers are more like the ordinary double



Dahlia than like the cactus Dahlia. Excellent.

^{*} Form of name most approved by botanical authorities.

HELIANTHUS

(From the Greek helios, the sun, and anthos, a flower)

3. Heliánthus rìgidus, var. Miss Mellish (II. missouriénsis, var. Miss Mellish)

ENGLISH NAME: Hardy sunflower.

HORTICULTURAL VARIETY, TYPE FROM WESTERN U.S.A.

AUGUST AND SEPTEMBER

LARGE, semi-double, golden daisylike flowers, two and one half to four inches wide, with yellow centres turning to brown, borne in profusion on vigorous, sparingly branching, leafy stems three to six feet

high. Leaves long and rounded, six to twelve inches long, rather thick and rough. Excellent for planting among shrubbery or for naturalizing in waste places, and good for cutting. Very effective also at the back of the large herbaceous border, but often troublesome on account of its tendency to spread and crowd out other plants.

A perfectly hardy perennial of easiest culture in any light, dry soil and in full sun. Every two years in late fall or early spring the plant should be divided and replanted.

Propagate by division. Var. Rev. Wolley Dodd. A September-blooming variety with semi-double, deep yellow flowers. This



and Miss Mellish are undoubtedly the two best fall-blooming hardy sunflowers.

HELIOPSIS

(From the Greek helios, the sun, and opsis, resemblance)

Compositae

39. Heliópsis làvis, var. Pitcheriàna (H. Pitcheriàna)

English Names: Ox eye, False sunflower, Orange sunflower.

HORTICULTURAL VARIETY
TYPE FROM EASTERN N. AMERICA

JULY AND AUGUST

SLIGHTLY cup-shaped, thick daisylike flowers sometimes two inches across, with bright orange rays and deeper orange centres, profusely borne in loose bunches on much-branching bushy plants

two to four feet high and three to five feet wide. Leaves smooth, thin, pointed, and saw-edged. Excellent for the herbaceous border or for naturalizing in dry spots, and very good for cutting.

A perfectly hardy perennial of easiest culture in any dry soil. Requires full sun. Should be divided every two years.

Propagate by division.



HEMEROCALLIS

(From the Greek hemera, a day, and kalos, beautiful)

Liliàceæ

65. Hemerocállis aurantíaca, var. májor

ENGLISH NAME: Orange day lily.

JAPAN

LATE JUNE THROUGH AUGUST

RAGRANT, bright orange, lilylike flowers, sometimes nine inches long and five to six inches wide, reddish brown on the outside, borne in clusters of six to eight flowers on long upright stems two and one

half to three feet high. Leaves long and grass-like, bluish green in color. Excellent in clumps in the herbaceous border or rock garden or for naturalizing by the edge of ponds. Good also for cutting. The individual flowers are short-lived, but are borne in good succession.

A perfectly hardy perennial of easiest culture. Will thrive in any good garden soil, in sun or shade, but does best in moist places and partial shade. Can be left four or five years without dividing.

Propagate by seed or by division.



HEMEROCALLIS

(From the Greek hemera, a day, and kalos, beautiful)
Liliàcea

64. Hemerocállis flàva

English Names: Yellow day lily, Lemon lily.

EUROPE, ASIA, N. AMERICA

LATE MAY THROUGH JUNE

FRAGRANT, lemon-yellow, lilylike flowers, three to seven inches long, borne in clusters of six to eight flowers on upright stems two to three feet high. Leaves a foot and a half to two feet long, narrow

and grasslike. Excellent in clumps in the herbaceous border or rock garden, or for naturalizing by the banks of ponds. Good also for cutting. The individual flowers are short-lived, but are borne in good succession.

A perfectly hardy perennial of easiest culture in any garden soil. Will thrive in sun or shade but does best in a moist, rich soil in partial shade.

Propagate by division.



HEMEROCALLIS

(From the Greek hemera, a day, and kalos, beautiful)

74. Hemerocállis Middendorfii

English Name: Yellow day lily.

AMUR REGION

JUNE TO MID-JULY

VERY fragrant, bright yellow, lilylike flowers, two to three inches long, borne in clusters of two to four flowers on long upright stems one and one half to three feet high. Leaves six to nine inches long.

broadly grasslike and curving, bright Excellent in clumps in the herbaceous border or rock garden, or for naturalizing by the water side. Good also for cutting. The individual flowers are short-lived, but are borne in good succession. One of the prettiest species of Hemerocallis and particularly useful for its early season, coming into bloom about a month before *II. aurantiaca*.

A perfectly hardy perennial of easiest culture in any garden soil, in sun or shade, but does best in moist, rich soil and partial shade.

Propagate by division.



HEUCHERA

(Named for J. H. von Heucher, 1677-1747, professor of botany at Wittenberg)

Saxifragacea

135. Heùchera sanguinea

ENGLISH NAMES: Coral bells, Crimson bells, Alum root.

NEW MEXICO AND ARIZONA MID-MAY TO EARLY SEPTEMBER

SMALL, dainty, bell-like, bright coral-red flowers borne in clusters on delicate wiry stems about a foot and a half high, above a thick clump of rich green leaves, of a rounded heart shape about two inches across,

scalloped around the edges and very decorative. Very excellent for edging the herbaceous border on account of its fine persistent foliage, bright and dainty flowers, and long blooming season. Excellent also for the rock garden and good for cutting.

A perfectly hardy perennial of easiest culture in any garden soil, in sun or partial shade.

There are a number of horticultural varieties of Heuchera in various shades of red and pink, the darker colors being usually the best. Among the commonest are:

Var. álba. Has foliage even finer than the type, but the flowers are ineffective.

Var. spléndens. Dark crimson flowers. Good.



Var. brizóides. Large bright pink flowers, not so good as the type. Var. "Pluie de feu." Free blooming, scarlet-red. Excellent.

HIBISCUS

(From hibiskos, the Greek name for the mallow)

Malväceæ

4. Hibíscus var. Meehan's Mallow Marvels

English Names: Swamp rose, Rose mallow, Marsh mallow, Sea hollyhock. Horticultural variety, type from eastern u.s.a. August to early october

ARGE, open flowers, like single Hollyhocks, four to eight inches across, in all shades from white through shell-pink to very dark crimson; or white, or pink with crimson eye, etc.; borne close to the stem on vigorous,

graceful, leafy stalks from four to six feet tall. Leaves large and roundish, graysh green, handsome, and persistent. Meehan's Mallow Marvels are hybrids derived from H. moschèutos.

Very striking and effective for planting in groups in the back of the herbaceous border, against shrubbery, or for naturalizing by the water side.

A perfectly hardy perennial of easiest culture in any good soil, in sun or partial shade. Does best in a moist, sandy loam. A light mulch in winter is desirable.

Propagate by seed or division. Seed does not always come true in color to parent.



HYPERICUM

(From hypereikon, the Greek name for the flower, derived from hypo, under, and ereike heather)

Hypericaceα

107. Hypéricum Moserianum

ENGLISH NAMES: St. John's wort, Gold flower.

S. E. EUROPE LATE JUNE THROUGH AUGUST

WIDE open, single, wild rose-shaped flowers about two inches across, golden yellow with many conspicuous bright orange stamens, borne one to three on a stalk on a low-growing erect shrub, one and one half to

two feet high, with drooping branches. Leaves oval, about one and one half inches long, dark green, leathery, and persistent. The flowers bloom a few at a time throughout the season, never producing a mass of color; therefore it should always be planted in clumps, never singly. Excellent for the herbaceous border. Technically a shrub and not a herbaceous perennial, but more suitable for the border than for shrubbery. Not reliably hardy in New England, but hardy farther south. Should be protected by leaves or litter in winter.

Of easy culture in any garden soil, in sun or halfshade. Does best in a light, warm soil, and



flowers longer in partial shade than in sun. Should be renewed every six or seven years.

Propagate by seed, by cuttings, or by suckers.

IBERIS

(From Iberia, the Latin name for Spain, where the genus abounds)

Crucifera

142. Ibèris sempérvirens

English Name: Hardy candytuft.

S. EUROPE MID-APRIL TO MID-MAY

MEROUS, very small pure white flowers profusely carried in dense clusters on a low, thick-spreading, shrubby plant from six to twelve inches high. Leaves rounded-oblong, dark and evergreen, thickly borne

and handsome. Excellent for the rock garden, naturalized over walls, and in front of shrubbery, or for the front of the herbaceous border, though it is such a vigorous spreader that it sometimes proves troublesome in the latter situation. Good also for cutting.

Technically a subshrub and not a hardy perennial, though almost always classed as such on account of its dwarf and floriferous habit. Perfectly hardy and of easiest culture, succeeding in any soil even in dry ground, in sun or partial shade.



IRIS

(From the Greek iris, a rainbow)

Iridàceæ

75. Ìris germánica, vars.

ENGLISH NAMES: German iris, Fleur-de-lis, European blue flag, Flower-de-luce.

HORTICULTURAL VARIETIES, TYPE FROM EUROPE

EARLY MAY TO EARLY JUNE

LARGE, showy, and sometimes fragrant flowers four to five inches wide by as much in height, with three large, erect, incurving petals called *standards*, and three large, golden-bearded, drooping ones called

falls, in self colors and combinations of white, vellow, brown, bronze, purple-blue, and lavender almost to rose, borne four or more close together along the tips of stout erect stalks two to three feet high. Leaves one, to one and one half feet long, stiff, swordlike, and growing from the ground in flat sheaves, blue gravgreen in color; fairly durable throughout the summer though usually turning brown at the tips and becoming unsightly.

A remarkably decorative plant, fine for planting in masses or singly against shrubbery or in the herbaceous border. Excellent for cutting. The foliage after bloom presents a difficult problem, as its withered ap-



pearance often mars an otherwise trim border. It is difficult to conceal with other plants, as Irises require plenty of room and will not stand crowding. Probably the best thing to do is to plant in not very large

75. Ìris germánica, vars. (Continued)

clumps, not too far forward, and snip the leaves with scissors as they turn brown.

Perfectly hardy perennials of easiest culture in any well-drained garden soil. Will grow in very dry locations, in sun or partial shade, but do best in a rich, well-drained soil with full exposure to the sun. The root is a horizontal surface-growing rhizome which should be planted flat and only covered to a depth of half its diameter. Is helped by fertilizing in the fall with stable manure which must be raked off in the spring. Increases rapidly and should be divided and replanted every two or three years. This may be done in the fall or spring, though by far the best time for transplanting is immediately after the blooming season.

Propagate by division of rhizomes.

The plants roughly classed as German Iris are almost all hybrids of various species and are very numerous. These horticultural varieties may be divided into ten or twelve fairly distinct groups. Among the most popular of the German Iris and allied groups are:

I. FLORENTINA:

The earliest type, blooming in May, smaller than the average plant though with large flowers, preferring half-shade; fragrant, with a fragrant root-stock (orris-root). Standards pure white, falls white, slightly tinged with layender.

Var. álba. Similar to the type, with pearly-white flowers.

I. FLAVÉSCENS:

Standards soft creamy-yellow, falls pale cream color, fragrant.

I. INTERRÉGNA:

Crosses between *I. germánica* and *I. pùmila*. Rather dwarf in habit, with flower stems about eighteen inches high and foliage lower. Foliage good throughout the season. Blooming between *I. florentìna* and *I. germánica*.

Var. Ingeborg. Very large flowers, standards and falls pure white. Var. Walhalla. Standards rosy-lavender, falls claret-red.

I. GERMÁNICA:

(Old germanica type of garden Iris, not the true botanical species.) Early flowering and fragrant, two to three feet high, blooming in mid-May, large flowers, usually in shades of blue or purple throughout.

Var. atropurpurea (or Kóchi). Standards rich grape-purple, falls

purple veined with white at base; probably the best-known variety.

Var. macrántha (or Ámas). Standards light blue, falls velvety blueviolet.

Var. spectábilis (or Johann de Witt). Standards bluish violet, falls deep purple.

I. PÁLLIDA:

(I. Junònia, I. asiática, I. sícula.) Tall flower stems, two to four feet high, bearing eight to twelve flowers, usually in pale blues, lavenders, and roses, with standards and falls differing little in color, blooming in late May.

Var. Celeste. Standard lavender-blue, falls deeper lavender-blue.

Var. dalmática. Standards lavender-blue, falls deep lavender. Large fragrant flowers. One of the very best of the German Irises.

Var. Lohengrin. Standards and falls deep violet-mauve. Very large flowers.

Var. Mme. Paquitte. Standards and falls bright rosy-claret.

Var. Queen of May. Standards rose-pink, falls deeper lavender-pink.

I. PLICÀTA:

(I. aphýlla, var. plicàta.) Very similar to the pallida type, with inner petals much folded. Flowers in pale blue or lavender and white.

Var. Bridesmaid. Standards pale lavender, falls white veined with lavender.

Var. Mme. Chereau. Standards and falls white frilled with azureblue. One of the loveliest of the German Irises.

I. NEGLÉCTA:

Many flowered; flowers medium sized, in blues, lavenders, and purples with prominent yellow beard on the much-recurved falls. Height one and one half to two feet.

75. Ìris germánica, vars. (Continued)

Var. Miss Maggie (or Hermione). Standards silvery lavender, falls soft rose.

Var. Perfection. Standards light blue, falls very dark velvety violet, orange beard.

I. AMŒNA:

A group similar in habit to the germanica type, blooming in late May. Characterized by flowers with standards of white or pale blue, and falls of blue or violet striped or edged with white.

Var. Compte de Ste. Claire. Standards pale blue, falls deep violet, striped and edged with white.

Var. Mrs. H. Darwin. Standards pure white, falls white slightly veined with violet at base. A beautiful variety.

Var. Rhein Nixie. Standards pure white, falls deep violet-blue with a white edge.

Var. Victorine. Standards white mottled with blue, falls deep purple. A beautiful variety.

I. VARIEGÀTA:

A group like the germanica type in habit, characterized by flowers with yellow standards and falls in shades of purple, claret, or red-brown.

Var. aùrea. Standards and falls golden-yellow. One of the best pure yellows.

Var. Darius. Standards rich canary yellow, falls lilac with white margin, prominent golden-yellow beard.

Var. Gracchus. Standards pale yellow, falls suffused crimson-purple veined with yellow.

Var. *Hector*. Standards delicate yellow, falls deep crimson-purple. Very handsome.

Var. Honorable (or Sans Souci). Standards bright Indian yellow, falls chestnut-red.

Var. Innocenza. Standards ivory white, falls white slightly veined at base of petal with maroon, rich golden beard. The nearest to pure white among the German Irises.

Var. Iris King. A cross between I. pállida, var. dalmática, and I. variegàta, var. Maori King. Standards clear lemon-yellow, falls deep

75. Iris germànica, vars. (Continued)

satiny brown with a wide border of golden-yellow. Perhaps the best of the group.

Var. Maori King. Standards golden-yellow, falls deep velvety crim-

son. Dwarf habit.

Var. Mrs. Neubronner. Standards and falls golden-yellow, deeper in color than var. aùrea, but equally fine.

I. squalens:

A group like the germanica type in habit, but with flowers of queer, rather dull shades of yellow and red.

Var. Dr. Bernice. Standards coppery bronze, falls dull crimson.

Var. Jacquesiana (or Conscience). Standards olive-yellow, falls dark wine-red.

Var. Miralba. Standards coppery rose, falls soft rose.

IRIS

(From the Greek iris, a rainbow)

Iridacea

51. Ìris lævigàta, vars. (I. Kampferi)

ENGLISH NAME: Japanese iris.

E. SIBERIA, JAPAN AND HORTICULTURAL VARIETIES

MID-JUNE TO MID-JULY

VERY large and showy single or double flowers, often ten inches across, and much flatter than other species of Iris, in shades varying from white to blue and deep purple, sometimes mottled and deeply veined, borne

one to three in a head at the ends of slender erect stalks two to three feet high. Leaves thin and narrow, one to one and a half feet long, bright green, erect, and bending gracefully over, forming a tangled mass of persistent foliage about one foot high.

One of the most striking and decorative of the hardy perennials. Though not so floriferous as the German Iris, the size and splendor of the flower amply compensates. Coming into bloom after the German Irises have completely passed by, they are sometimes called "Summer Iris." Very effective in the herbaceous border and especially so massed in clumps by the water side



or at the edge of shrubbery. Excellent for cutting.

Perfectly hardy perennials of easy culture in rich, moist soil. Any good soil enriched with well-rotted manure will do, but plenty of water,

51. Ìris lævigàta, vars. (Continued)

especially during the flowering season, is essential to best results. Prefer sunny situations and should not be frequently disturbed. Are best planted in late summer but may be started in early spring.

There are a great number of varieties of Japanese Iris, all of which are good. Below are given some of the most popular, with translations of the Japanese names for the benefit of those who prefer English names for flowers:

Date-dogu (Arms of warfare). Rich claret-red with orange blotches and white veinings, standards white with light claret edging. Very large single flowers.

Kaku-jaku-ro (Square-flowered pomegranate). Violet-blue dusted over a white ground, yellow blotches, standards blue and white. Single flowers.

Kigan-no-misao (Invincible virtue). Pure white shading to yellow at the base, standards creamy white. Late-blooming double flowers.

Komochi-guma (Bear and cubs). Deep violet-purple throughout. Double flowers.

Kumo-no-obi (Girdle of cobweb). Dark lavender-purple with yellow blotches and white veinings, standards large and of the same color. Single flowers.

Kyodai-san (Twin mountain). Very dark purplish blue veined with white. Double flowers.

Mei-ran (The name of an orchid). White, densely veined and marbled with lavender-rose, centre yellow. Single flowers.

Oniga-shima (The name of an island, according to Japanese legend, inhabited by devils). Rich royal purple, standards white, tipped with violet. Very large double flowers.

Samidare (Spring rains). Silvery white veined with rich ultramarine blue. Double flowers.

Shippo (Seven jewels). Violet-blue edged with purple, standards lavender and white. Double flowers.

Sofu-no-koi (Voice of the hero). White, splashed and speckled sky-blue, primrose-yellow blotches radiating into the petals, standards creamy white with violet margins. Double flowers.

Tai-hai-raku (The world is at peace). Rich claret-purple, yellow blotches, standards grayish lavender. Single flowers.

Tsurugi-no-mai (Sword dance). Rich reddish purple with darker shadings, centre violet-purple. Double flowers.

IRIS

(From the Greek iris, a rambow)

163. Íris púmila (I. grácilis)

ENGLISH NAME: Dwarf iris.

EUROPE MID-APRIL TO LATE MAY

SINGLE Iris flowers, very large for the plant, typically deep purple but varying in the hybrid vars. from azure-blue to purple and from white to lemon-yellow, carried singly on very short erect stems from

four to nine inches high. Leaves stiff and sword shaped, two to four inches long, bluish green and persistent. Excellent for the rock garden or for edging the herbaceous border, the rich, showy flowers being among the first to bloom in the spring, and though the blossoms are shortlived, the foliage is effective throughout the summer. Good for planting in dry places. plants spread rapidly by creeping rhizomes and soon form large patches.

A perfectly hardy perennial of easiest culture in any garden soil, in sun or partial shade.

Propagate by division.



IRIS

(From the Greek iris, a rainbow)

Iridàceæ

66. Ìris sibírica (I. acùta)

ENGLISH NAME: Siberian iris.

EUROPE, E. SIBERIA

LATE MAY TO MID-JUNE

WELL-FORMED, rather small, but showy flowers resembling the wild Iris, rich blue in color, borne in heads of three or more on the ends of many long, very slender, upright stems from two to four feet high.

Leaves thin, one to two feet long, and not at all rigid, forming a dense grasslike tuft of persistent, bright green foliage about one and one half feet high. Excellent for the herbaceous border, coming into bloom between the German and the Japanese Iris, or for naturalizing against shrubbery or by the water side. Excellent also for cutting.

A perfectly hardy perennial of easiest culture in rich soil and full sun. The rhizomes require deep planting and plenty of water, especially during the flowering season.

Propagate by division.
The following varieties

Var. álba. White flowers veined with pale lilac.

Var. Snow Queen. Large ivory-white flowers.



Var. orientàlis (var. sanguínea; var. hæmatophýlla; I. orientàlis; I. sanguínea; I. hæmatophýlla). Resembling the Siberian Iris but lower growing and blooming a little bit earlier; the flowers are larger but do not last so long; a second crop is often produced later. Flowers violet-blue.

LATHYRUS

(From the Greek lathyros, a name used for a vetch)

Leguminosa:

6. Láthyrus latifòlius, var. álbus

English Names: Everlasting pea, Perennial pea.

HORTICULTURAL VARIETY, TYPE FROM EUROPE

JULY AND AUGUST

LARGE, white, unfragrant sweet-pea-like blossoms, profusely borne in clusters on sturdy climbing stems, from four to eight feet long. Leaves compound, grayish green, and persistent, forming a good back-

ground. Not suitable for the herbaceous border except when growing on a trellis at the back. Excellent as a covering for rough wild banks and stumps as it thrives anywhere, even among bushes and stones. Very good also for cutting.

A perfectly hardy perennial of easiest culture in any soil, in sun or shade, grows very rapidly but should not often be disturbed on account of the size of the long fleshy roots.

Propagate best by seed or by division.



LATHYRUS

(From the Greek lathyros, a name used for vetch)

Leguminosea

7. Láthyrus latifòlius, var. spléndens

ENGLISH NAMES: Everlasting pea, Perennial pea.

HORTICULTURAL VARIETY, TYPE FROM EUROPE

JULY AND AUGUST

LARGE, brilliant, rosy-purple, or sometimes red, unfragrant sweetpea-like blossoms, profusely borne in loose clusters on sturdy climbing stems four to eight feet long. Leaves compound, grayish green, and

persistent, forming an excellent background. This variety is the best form of the type, being very showy and free growing, but is not suitable for the herbaceous border except when grown on a trellis at the back. Excellent for covering rough wild banks and stumps as it thrives anywhere, even among bushes and stones. Very good also for cutting.

A perfectly hardy perennial of easiest culture in any soil, in sun or shade, grows very rapidly but should not be often disturbed, on account of the size of the long fleshy roots.

Propagate by seed or division; does not always come true to seed.



LIATRIS

(Name of unknown origin)

Compósitæ

15. Liàtris pycnostàchya

ENGLISH NAMES: Blazing star, Kansas gay feather, Button snake root, Devil's bit, Rattlesnake's master.

CENTRAL U. S. A.

EARLY JULY THROUGH AUGUST

SMALL purple flower heads, about one half inch long, in showy, long, dense spikes five to eighteen inches long, which commence to flower at the top, borne on leafy stems three to five feet high. Leaves slender

and grasslike, thickly clothing the stem; persistent. Excellent in masses in the herbaceous border or naturalized against shrubbery or in waste places.

A perfectly hardy perennial of easiest culture. Will grow in very poor soil, in sun, but thrives best in rich garden soil and in partial shade.

Propagate by seed sown in autumn or by division.



(The classic Latin name, from the Greek leirion, a lily)

40. Lílium auràtum

ENGLISH NAME: Gold-banded lily.

JAPAN

JULY AND AUGUST

LARGE, showy, fragrant flowers spreading nearly a foot wide, cream colored, thickly mottled with purple and with a golden band down the centre of each petal; borne in heads of two to five on leafy stems two to

four feet high. Leaves slender and inconspicuous. Very effective scattered or in masses in the herbaceous border, or scattered among shrubbery. Too large a mass should not be used in the border, as the foliage dies down after blooming and may leave a bare spot. Good for cutting.

A hardy perennial, but of short life, the bulb usually dying in two or three years. A well-drained soil is essential, and manure should never be allowed to come in direct contact with the bulb. Lily bulbs should be deeply planted, with the top of the bulb about six inches below the ground, as they are then more resistant to drought, hot weather, and frost. In



planting excavate to twice the depth of the bulb planting, fill in first with well-composted manure, then with about an inch of sand, or perhaps better two or three inches of fresh sphagnum moss, then place the bulb;

40. Lílium auràtum (Continued)

cover with light soil mixed with peat or leaf mold. Further enrichment can be given from time to time by mulching with well-rotted manure. Will thrive in sun or partial shade, but the ground should always be kept cool and moist, either by shade or by a top dressing of peat or leaf mold.

Propagate by offsets, by bulb-scales, removed when ripe, or very slowly by seed.

(The classic Latin name, from the Greek leirion, a hly)

Lílium Bátemani (*L. élegans, var. fúlgens; L. fúlgens; 76. L. sanguineum)

IAPAN

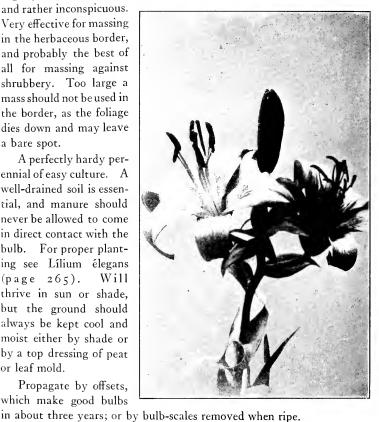
IULY AND AUGUST

CPREADING apricot or salmon-red unspotted flowers, smaller than those of L. élegans, borne erect in heads of one to five on a sturdy, slightly cobwebby, and leafy stalk one to three feet high. Leaves slender

and rather inconspicuous. Very effective for massing in the herbaceous border, and probably the best of all for massing against shrubbery. Too large a mass should not be used in the border, as the foliage dies down and may leave a bare spot.

A perfectly hardy perennial of easy culture. A well-drained soil is essential, and manure should never be allowed to come in direct contact with the bulb. For proper planting see Lílium élegans (page 265). Will thrive in sun or shade, but the ground should always be kept cool and moist either by shade or by a top dressing of peat or leaf mold.

Propagate by offsets, which make good bulbs



^{*}Form of name most approved by botanical authorities.

(The classic Latin name, from the Greek lession, a hly)

41. Lílium cándidum

ENGLISH NAME: Madonna lily.

S. EUROPE LATE JUNE TO MID-RELY

VERY fragrant, pure white, trumpet-shaped flowers, three and a half to five inches long, borne horizontally, six to twenty-five in a head, on tall, erect, and leafy stems two to four feet high. Leaves slender

and inconspicuous. Very effective in small clumps in the herbaceous border or against shrubbery, showing to best advantage with a high background of foliage. In large masses is less effective than many other Lilies. After blooming the foliage dies to the ground, making a low, green second growth before winter.

A hardy perennial of easy culture though particularly liable to Lily disease. The best preventive against this blight is to dust the bulbs with powdered sulphur before planting and spray the foliage with Bordeaux mixture before the blight appears. A well-drained soil is essential, and manure should never be allowed to come in direct contact with the bulb.



The bulbs should be planted with the base of the bulb about four inches below the ground, as they are then more resistant to drought, hot weather, and frost. In planting excavate to twice the depth of

41. Lílium cándidum (Continued)

the bulb planting, fill in first with well-composted manure, then with about an inch of sand, or perhaps better two or three inches of fresh sphagnum moss, then place the bulb. Cover with light soil mixed with peat or leaf mold. Further enrichment can be given from time to time by mulching with well-rotted manure. Will thrive in sun or partial shade, but the ground should always be kept cool and moist either by shade or by a top dressing of peat or leaf mold.

Propagate best by bulb-scales which, if separated as soon as the foliage begins to turn in August, will send up leaves before winter; by offsets, or, very slowly, by seed.

(The classic Latin name, from the Greek leirion, a lily)

116. Lilium élegans (Thunbèrgii) (L. dahùricum; L. Thunbergiànum; L. umbellàtum; L. formòsum)

1484 RUNE TO MID-RUN

LARGE, spreading, self-colored flowers of brilliant yellow-orange borne erect in heads of one to five on a sturdy, slightly cobwebby, and leafy stalk one to two feet high. Leaves slender and rather inconspicuous.

Very effective in masses in the herbaceous border or among shrubbery. Perhaps the most satisfactory species of Lily for general garden use. Too large a mass should not be used in the border, as the foliage dies down and may leave a bare spot.

A perfectly hardy perennial of easy culture. A well-drained soil is essential and manure should never be allowed to come in direct contact with the bulb. Bulbs should be deeply planted with the base of the bulb about six inches below the ground, as they are then more resistant to drought. hot weather, and frost. In planting excavate twice the depth of the bulb planting, fill in first with well-composted ma-



nure, then with about an inch of sand, then place the bulb. Cover with light soil mixed with peat or leaf mold. Further enrichment can be given from time to time by mulching with well-rotted manure.

116. Lilíum élegans (Thunbèrgii) (Continued)

Will thrive in sun or partial shade, but the ground should always be kept cool and moist either by shade or by a top dressing of peat or leaf mold.

Propagate by offsets, which make good bulbs in about three years, or by bulb-scales removed when ripe.

There are many excellent varieties of *L. élegans* (of which *L. Batemani*, already given, is one) differing from the type chiefly in the color of the flower. Among the best are:

Var. bicolor. Bright red flowers with orange centres.

Var. Alice Wilson. Large lemon-yellow flowers.

Var. Wállacei (L. Wállacei). A smaller and later-blooming form. Flowers apricot spotted with black.

(The classic Latin name, from the Greek leiroin, a lily)

5. Lílium Hénryi

CHINA

AUGUST AND SEPTEMBER

LARGE, dark salmon-orange flowers sparingly spotted with red-brown, borne horizontally in loose pyramidal heads of four to eight flowers on leafy stems of graceful and unconventional habit four to eight feet high,

Leaves slender and rather inconspicuous. Superb in clumps in the herbaceous border or massed against shrubbery. After blooming the foliage dies to the ground. A recently introduced and therefore still comparatively expensive variety but none the less sturdy and free growing.

A perfectly hardy perennial of easy culture. A well-drained soil is essential, and manure should never be allowed to come in direct contact with the bulb. For proper planting of Lilies see Lilium auratum (page 255). Will thrive in sun or partial shade, but the ground should always be kept cool and moist either by shade or by a top dressing of peat or leaf mold.



Propagate by offsets or by bulb-scales planted as soon as ripe.

(The classic Latin name, from the Greek leirion, a lily)

Liliàcea

52. Lílium speciòsum, vars. (L. lancifòlium, vars.; L. pràcox, vars.)

AUGUST AND SEPTEMBER

LARGE, and, in some varieties, fragrant flowers, white, or white suffused with pink or rosy-red, and much spotted with red; with recurved and twisted petals, borne somewhat pendulously in unbranching

heads of three to ten flowers on a graceful leafy stem two to four feet high, of rather unconventional habit. Leaves larger and broader than with most Lilies. Very effective scattered or in masses in the herbaceous border, or scattered among shrubbery. Too large a mass should not be used in the herbaceous bord r, as the foliage dies down after blooming, and may leave a bare spot.

A perfectly hardy perennial of easy culture. A well-drained soil is essential, and manure should never be allowed to come in direct contact with the bulb. For proper planting of Lilies see Lílium auràtum (page 255).

Propagate by offsets or by bulb-scales divided as soon as ripe.



Var. álbum. Pure white and fragrant.

Var. Melpómene. White suffused with deep crimson.

Var. rúbrum (var. ròseum). White shaded and spotted with rose, fragrant, the best and most vigorous variety.



(The classic Latin name, from the Greek leirion, a hly)

29. Lílium supérbum

ENGLISH NAMES: Turk's-cap lily, Turk's-head lily, Nodding lily, Wild lily.

EASTERN NORTH AMERICA MID-JUNE TO MID-JULY

BRIGHT reddish orange flowers conspicuously spotted with brown, with pointed, much recurved petals, carried pendently in a tall pyramidal cluster of from six to eighteen flowers on a sturdy leafy stem three to six

feet tall. Leaves, often in whorls around the stem, pointed and rather inconspicuous. Excellent in clumps in the herbaceous border or naturalized among shrubs, or by the watersidewhere it may attain a height of eight to ten feet. After blooming the foliage dies to the ground.

perfectly hardy perennial growing wild throughout the eastern United States, of easiest culture, even in heavy and dampsoil. Manureshould never be allowed to come in contact with the bulb. For proper planting of Lilies see Lílium aurâtum (page 255). Will thrive in sun or half-shade, but does best if the ground is kept cool and moist either by shade or by a top dressing of peat or leaf mold.



Propagate by offsets, bulb-scales divided as soon as quite ripe, or, very slowly, by seed.

(The classic Latin name, from the Greek leirion, a lily)

Liliàceæ

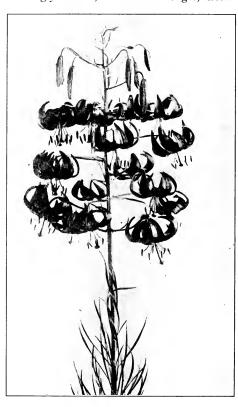
117. Lilium tenuifòlium

English Name: Siberian coral lily.

SIBERIA JUNE

R ICH scarlet flowers with darker shadings and recurving petals, carried pendently in clusters of from one to twenty on erect stems one to two feet high. Leaves exceedingly slender, curled at the edges, incon-

Excellent for spicuous. massing in the herbaceous border, being very showy and easily grown. After blooming the foliage dies to the ground. A perfectly hardy perennial of easiest culture in any well-drained, lightsoil. Likemost Lilies, however, it does best in rich soil, though manure should never be allowed to come in contact with the bulb. The bulb should be planted with the base about four inches below the ground. Excavate to twice the depth of the bulb planting, fill in first with well-rotted manure. then with about an inch of sand, then place the bulb, surround it with sand, and fill in with light soil, preferably mixed with peat or leaf mold. Mulch from time to time with well-



rotted manure. Requires sun, but does best if the ground is kept cool and moist either by shade or a top dressing of peat or leaf mold.

Easily propagated from seeds or bulb-scales.

(The classic Latin name, from the Greek leirion, 4 hlv)

30. Lîlium tigrinum

ENGLISH NAMES: Tiger lily, Crumple lily.
CHINA EARLY JULY THROUGH AUGUST

BRIGHT orange-red flowers with recurved petals thickly covered with purple spots; carried pendantly in a loose head of three to twelve flowers on an erect, somewhat cobwebby, and leafy stem two to five feet

high. Leaves dark green, thin, and pointed, not very conspicuous, with bulblets in the axils of the upper leaves. Excellent for planting in small clumps in the herbaceous border, and very brilliant naturalized in masses against shrubbery. After blooming the foliage dies to the ground.

A perfectly hardy perennial of easiest culture, even in fairly heavy soil. Like most Lilies, however, it does best in a well-drained soil, and manure should never be allowed to come in contact with the bulb. For proper planting of Lilies see Lilium auràtum (page 255). Will thrive in sun or half-shade, but does best if the ground is kept cool and moist either by shade



or by a top dressing of peat or leaf mold.

Propagate by offsets, bulb-scales, or by the axillary bulblets which will usually produce bloom the third or fourth year.

LINUM

(The classical Latin name)

Linàceæ

118. Linum perénne

ENGLISH NAME: Flax.

EUROPE, WESTERN U. S. A.

EARLY MAY THROUGH JULY

MALL, flat, five-petaled azure-blue flowers freely borne at the ends of very slender, erect, and branching leafy stems one to two feet high. Leaves very small and slender; inconspicuous. Excellent

for the rock garden or herbaceous border. Extremely dainty and yet showy, as the flowers though short-lived are very continuously borne. Good for planting in dry places.

A hardy perennial of easiest culture in any rich, light soil. Prefers an open situation exposed to the sun.

Propagate by seed or by division; will often bloom the first year from seed.



LOBELIA

(Named for Matthias de L'Obel, 1538-1616, a Flemish botanist and author)

Lobeliàcea

100. Lobèlia cardinàlis

English Names: Cardinal flower, Indian pink, Red Betty, Red cardinal, Slink weed, Hog physic.

EASTERN N. AMERICA

MID-JULY THROUGH AUGUST

INTENSE cardinal-red flowers about one inch long, born in spikes on erect, unbranching, leafy stems two to four feet tall. Leaves narrow and inconspicuous, dying down after the blooming season. Good for shady spots

in the herbaceous border on account of the brilliance of its flowers, but especially fine for naturalizing in swampy spots or by the water side.

A hardy perennial of easy culture in any moist soil, preferably rich, in sun or shade.

Propagate by seed, cuttings, or by division; will self-sow.



LUPINUS

(A classical Latin name for some leguminous plant, from lupus, a wolf, because it was supposed to destroy fertility)

Leguminora

33. Lupinus polyphýllus, vars. (L. grandiflòrus)

ENGLISH NAME: Lupine.

PACIFIC SLOPE, U. S. A.

MID-MAY TO MID-JUNE

PEA-SHAPED flowers, typically deep blue, but white and pink in its varieties, thickly borne in stately spikes from a foot to a foot and a half long, rising above the foliage to a height of two to five feet. Leaves

divided like a palm, from four to ten inches in diameter, dark green and satiny, forming a very handsome persistent clump. Excellent for the herbaceous border, for naturalizing, or for cut flowers.

A hardy perennial of easy culture in any garden soil, even though rather poor and dry, except possibly where lime is present. Succeeds best in sun and in a cool climate, and when once established should not be moved.

Propagate by seed or by division.

There are several horticultural varieties, but the best are:

Var. álbus (var. albiflòrus). Similar to the type but with white flowers.



Var. ròseus. Somewhat lower growing than the type, flowers clear shell-pink.

LYCHNIS

(From the Greek luchnos, a lamp, because of the brilliant flowers)

Caryophyllacea

53. Lýchnis chalcedónica

English Names: Jerusalem- or Knight's-cross, Maltese- or Scarlet-cross, Maltese sage, Scarlet lychnis, Scarlet lightning, Campion of Constantinople, Cross of Jerusalem, Fire balls, None-such, Mock sweet William.

RUSSIA OR JAPAN

JUNE TO MID-JULY

CROSS-SHAPED flowers of brilliant scarlet in close terminal clusters borne on unbranching, rather stalky, hairy stems two to three feet high. Leaves small, pointed, sometimes quite narrow, hairy, and incon-

spicuous. Good in the herbaceous border on account of the vivid color of its flowers, but should always be placed where the foliage of other flowers will conceal the bareness of its stems.

A perfectly hardy perennial of easiest culture in any good garden soil, in sun or shade.

Propagate by seed or by division.

Var. flòre pléno, a double-flowered form, as good as the type.



LYCHNIS

(From the Greek luchnos, a lamp, because of the brilliant flowers)

Caryophyllàceæ

132. Lýchnis Viscària, var. spléndens

ENGLISH NAME: German catchfly.

HORTICULTURAL VARIETY
TYPE FROM EUROPE AND NORTHERN ASIA

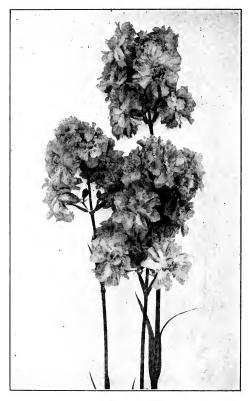
JUNE

MALL rosy-red flowers, in short-stalked clusters which form round tufted head, borne in profusion on upright stems six to twenty inches high. Sticky patches on the stem below the flower clusters are respon-

sible for the name Catch-fly. Leaves long and grasslike. Good for the rock garden or for the herbaceous border on account of its bright color and very free bloom.

A perfectly hardy perennial of easiest culture in any good light soil. Resists drought well. Should have full exposure to the sun.

Propagate by seed or by division.



LYSIMACHIA

(From lysimachion, the Greek name for a medicinal herb, derived from lyó, to loose, and machomai, strife, because supposed to quiet oxen that would not draw well together in the same voke)

Primulàcea

87. Lysimàchia clethroides

ENGLISH NAME: Japanese loosestrife.

JAPAN

JULY AND AUGUST

PURE white starlike flowers, one half inch in diameter, borne in long and graceful terminal spikes on stout stems, at a height of two to three feet. Leaves large, three to six inches long, broadly pointed, dying

after the blooming season though still attractive for a considerable time. Good for planting in the herbaceous border and for naturalizing by the water side. Very good also for cutting.

A perfectly hardy perennial of easiest culture in any good soil in sun.

Propagate by seed or by division.



LYTHRUM

(From the Greek *lythron*, gore; alluding to the color of the flowers) $Lythråce\boldsymbol{\alpha}$

54. Lýthrum Salicària, var. ròseum supérbum (L. róseum supérbum)

ENGLISH NAMES: Rose loosestrife, Spiked loosestrife, Spiked willow herb, Milk willow herb, Willow weed, Willow wort, Sage willow, Red Sally, Rainbow weed, Black blood.

HORTICULTURAL VARIETY, TYPE FROM AUSTRALIA

JULY AND AUGUST

LARGE rose-colored flowers in a tall spike borne on a graceful leafy stem two to five feet high. Leaves willowlike, two to three inches long; persistent. Good in moist places in the herbaceous border, and

especially good for naturalizing among shrubbery or by the water side.

A perfectly hardy perennial of easiest culture in any moist soil. Will thrive in full sun or partial shade.

Propagate by division.



MONARDA

(Named for Nicholas Monardes, Spanish botanist of the sixteenth century)

77. Monárda dídyma (M. fistulòsa; M. kalmiàna)

English Names: Oswego tea, Bee balm, Rose balm, Low balm, Red or Scarlet balm, Fragrant balm, Mountain mint, Indian's plume, Sweet Mary, Square stalk, Horse mint.

N. AMERICA

MID-JUNE THROUGH AUGUST

VERY fragrant, wide-mouthed, brilliant scarlet flowers borne in large heads on rather coarse stalks two to four feet high. Leaves thin and insignificant. Not an attractive plant in detail because of the coarse-

ness of its habit, but very effective seen at a distance when massed in a large herbaceous border on account of the very fine and vivid color of its flowers. Excellent also for naturalizing by the water side or in woods. Increases so rapidly that it sometimes proves trouble-some in the border.

A perfectly hardy perennial of easiest culture in any ordinary soil, in sun or shade. Though its natural habitat is in damp places, it will thrive without an unusual amount of moisture. Should frequently be divided.

Propagate by division in spring.

Var. álba, a whiteflowered form, has the habit of the type, but lacks the brilliant color



of the flowers; has little to recommend it.

MONTBRETIA

(Named for A. F. E. Coquebert de Montbret, 1780–1801, a French botanist)

1 ridàce#

55. Montbrètia crocosmæflora (*Tritonia crocosmæflora)

ENGLISH NAME: Blazing star.

HORTICULTURAL HYBRID, TYPE FROM S. AFRICA

IULY THROUGH SEPTEMBER

RANGE-SCARLET, starlike flowers about two inches across, hanging in long graceful spikes from slender, much-branching stems, three to four feet high. Leaves tall, narrow, and stiff, springing

from the ground around the bulb. Excellent for the herbaceous border on account of its gay color and decorative habit.

A half-hardy perennial of easy culture in rich, well-drained soil, in sun. South of New York it may be treated like other hardy perennials if given the protection of a good mulch in winter. In cold climates the bulbs should be wintered in slightly damp earth indoors and planted out again in April or May.

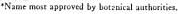
Propagate by offsets or by bulb-scales.

There are a number of named varieties varying chiefly in the color of the flowers. Among the most popular are:

Var. germánica. Orange-scarlet with blood-red throat.

Var. Rayon d'Or. Deep yellow and brown.

Var. Transcendant. Golden-yellow, bright red outside.





MYOSOTIS

(The classic Greek name, derived from myos, of a mouse, and our an ear, on account of the form of the leaf

Boraginacea

158. Myosòtis palústris, var. sempérflorens

ENGLISH NAMES: Forget-me-not, Mouse ear, Scorpion grass, Marsh Scorpion grass, Snake grass, Caterpillars, Love-me.

HORTICULTURAL VARIETY, TYPE FROM E. ASIA

MAY THROUGH SEPTEMBER

MALL, bright, light blue flowers with a yellow eye and pink buds, freely borne in loose clusters on leafy half-creeping stems six to ten inches long. Foliage small, roundish, and bright green, thick and very

persistent. Very excellent for carpeting in shady places, under shrubbery, or at the front of the herbaceous border on account of its long season of bloom and bright lasting foliage. Excellent also for shady spots in the rock garden or for naturalizing by the water side, and good for cutting.

A perfectly hardy perennial of easiest culture in any ordinary soil. Prefers moist, partially shady situation, but will thrive in the ordinary border in sun if not allowed to suffer from drought.

Propagate by seed or very easily by cuttings or division.



OENOTHERA

(From ornothera, "wine-trap," the Greek name for the plant, oinos, wine, and theran, to catch. The edible root was used as a relish with the wine after dinner)

Onagràceæ

108. Œnothèra fruticòsa, var. Yoúngii (O. Yoúngii)

ENGLISH NAMES: Evening primrose, Sundrops.

NORTH AMERICA

JUNE AND JULY

RAGRANT, bright lemon-yellow flowers one and one half to two inches across, freely borne in clusters on a sturdy, much-branched plant growing one and one half to two feet high. Leaves shiny grayish

green, firm and fairly large, narrow, pointedoval, nearly three inches long; persistent. Excellent for the herbaceous border on account of its stocky habit and profusion of bright flowers, which in spite of its English name bloom throughout the daytime except in very bright sun.

A perfectly hardy perennial of easy culture in any garden soil, in sun or half-shade. Does best in full sun and dry, sandy soil

Propagate by seed or by cuttings.



OENOTHERA

(From oinothera, "wine-trap," the Greek name for the plant, oinos, wine, and theran, to catch. The edible root was used as a relish with the wine after dinner)

marrices

149. Œnothèra missouriénsis (Œ. macrocárpa; Megaptèrium missouriénse)

ENGLISH NAMES: Evening primrose, Sundrops.

MISSOURI AND NEBRASKA TO TEXAS

JUNE TO FARLY AUGUST

VERY large, fragrant, bright yellow flowers, three to five inches across, profusely borne on trailing stems which ascend to a height of six to twelve inches. Leaves thick and narrow, sometimes five inches long;

persistent. Excellent for the front of the herbaceous border or for the rock garden.

A perfectly hardy perennial of easy culture in any light soil, in sun or half-shade. Does well in dry places in full sun.

Propagate by cuttings or by division.



PAEONIA

(From the classic Greek name paionia, named for Paion, the physician of the gods)

Ranunculàcea

27. Pæònia moután, vars. (P. arbòrea, vars.)

English Names: Tree peony, Chinese tree, Botan (Japan), Meutang (meaning King of Flowers, China)

HORTICULTURAL VARIETIES
TYPE FROM CHINA

MAY

BEAUTIFUL, large, single or double, slightly fragrant flowers often eight to ten inches across, ranging in color from white to deep crimson, borne on much-branched, somewhat woody stems from three to six feet

high. Foliage thick, shiny green, very handsome, and persistent. Very fine in isolated clumps in the herbaceous border, or among shrubbery. Undoubtedly the most splendid of the Peonies, though somewhat harder to grow than the other species. Good also for cutting.

Strictly a shrub rather than a herbaceous perennial, and mostly quite hardy. Does well in sun. though blooming longer in partial shade. In planting the soil should be dug to a depth of two or more feet, with a large quantity of well-rotted horse manure or cow manure worked in at the bottom. Fill with soft, rich loam mixed in equal quantities with leaf mold. The roots should not come in direct



contact with the manure. Peonies should be liberally watered at all times,

27. Pæònia moután, vars. (Continued)

especially when in bloom. Watering with liquid manure is beneficial when the ground is dry. It usually requires two to three years for Peonies to become well-established, but when once established they will bloom if undisturbed for twenty years or more. By far the best time for planting is in the early fall, September or October, though with care any time from the middle of August till spring will do. In winter tree Peonies should be protected with manure or straw to a depth of a foot or more, and above that covered by dry leaves held down by brush or light boards; a light wood or canvas covering at the top to shed rain is also wise. In late spring the manure should be well dug into the ground and the leaves removed, beginning at the bottom, those at the top of the bush remaining until all danger of frost is past.

Propagate by grafting on the roots of the herbaceous species. Plants from Japan are usually grafted on the roots of a purple flowered variety, whose suckers, unless constantly cut, are liable to choke the graft.

Nearly all the tree Peonies (of which in China there are hundreds) are fine, especially the single varieties. One of the best known and finest is *Elizabeth*, with large, much-doubled, bright salmon-pink flowers.

PAEONIA

(From the classic Greek name paionia, named for Paion, the physician of the gods)

Ranunculacea

78. Pæònia officinàlis, vars. (P. fúlgida, vars.)

English Names: Old-fashioned peony, Early flowering or European peony, Piney, Naupie, Sheep-shearing rose, Vinegar rose.

SOUTHERN EUROPE AND HORTICULTURAL VARIETIES

EARLY MAY TO EARLY JUNE

LARGE, fragrant, typically crimson single flowers; in the horticultural varieties ranging from white to deep mahogany, and single or double; borne on stout leafy stems two to three feet high. Leaves

divided into fifteen to twenty oval leaflets, dark green above and pale beneath, very handsome and persistent. Very excellent in clumps in the herbaceous border on account of the trim, handsome, and lasting foliage and the brilliant flowers. Excellent also for front of shrubbery beds and for cutting.

A perfectly hardy perennial of easy culture, in sun or partial shade, though blooming longer in partial shade. In planting the soil should be dug to a depth of two or more feet, with a large quantity of well-rotted horse or cow manure worked in at the bottom. Fill with soft, rich loam mixed in equal quantities with leaf mold. The roots should be



set carefully, with the crowns between two and three inches below the surface of the ground, and should not come in direct contact with the manure.

78. Pæònia officinàlis, vars. (Continued)

Peonies should be liberally watered at all times, especially when in bloom. Watering with liquid manure is beneficial when the ground is dry. It usually requires two or three years for Peonies to become well-established, but when once established they will bloom if undisturbed for twenty years or more.

By far the best time for dividing or planting is in the early fall, September or October, though with care any time from the middle of August till early spring will do. In winter a covering of manure should be given which should be well worked into the ground in spring.

Propagate by division.

The old-fashioned varieties, all of which are excellent, are:

Var. rûbra plêna. "Old Double Crimson," very double, deep rich crimson.

Var. rósea plèna. "Old Double Rose," very double, bright rose.

Var. álba plèna (mutábilis álba). "Old Double Flesh-White," very double, bright coral changing to pure white.

Excellent single varieties are:

Var. anemonaflora. Deep blood-crimson, almost single flowers, with a mass of twisted maroon stamens edged with yellow.

Var. Otto Froebel. Single, pale cherry-red flowers.

Var. rósea. Single, deep rose flowers.

Var. Sabini. Single, deep crimson flowers with golden stamens.

P. lobàta. A species very similar to P. officinàlis, has single cerise-salmon flowers; the only Peony of this color.

PAEONIA

(From the classic Greek name paionia, named for Paion, the physician of the gods)

Ranunculàceæ

34. Pæònia (albiflòra hybrids) vars. (P. sinénsis vars.)

ENGLISH NAMES: Herbaceous peony, Late flowering or Chinese peony.

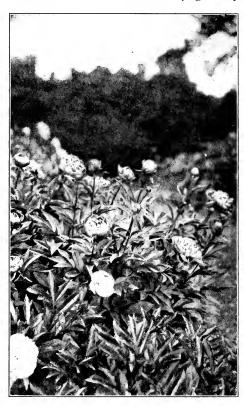
CHINA AND HORTICULTURAL VARIETIES

LATE MAY TO LATE JUNE

BEAUTIFUL, large, single or double fragrant flowers, four to six inches across, in shades varying from pure white to crimson and mahogany, and parti-colored, borne sometimes two to five on a stem on upright leafy

stems, often branching, two to four feet high. Leaves pointed-oval, deep glossy green with red veinings, very handsome, and persistent. One of the very best plants for the herbaceous border on account of its hardiness and splendid trim-foliage effect throughout the season, as well as for its very lovely flowers. Excellent also for the front of shrubbery beds and for cutting.

A perfectly hardy perennial of easy culture, in sun or partial shade. In planting the soil should be dug to a depth of two or more feet, with a large quantity of well-rotted horse or cow manure worked in at the bottom. Fill with soft, rich loam mixed in equal quantities



with leaf mold. The roots should be set carefully, with the crowns between two and three inches below the surface of the ground, and should not come in direct contact with the manure. Peonies should be liberally

34. Pæònia (albiflòra hybrids) vars. (Continued)

watered at all times, especially when in bloom. Watering with liquid manure is beneficial when the ground is dry. It usually requires two or three years for Peonies to become established, but when once established they will bloom if undisturbed for twenty years or more. By far the best time for dividing or planting is in the early fall, September or October, though with care any time from the middle of August till early spring will do. In winter a covering of manure should be given which should be well worked into the ground in spring.

Propagate by division.

There are a thousand or more horticultural varieties of herbaceous Peonies, nearly all derived from *Paeònia albiflòra*, and the number is constantly being added to. These vary in color, size of flower, season of bloom, and very much in the form of the flower. It is impossible to convey any idea of these flower forms without photographs, and the only really satisfactory way to choose Peonies is by seeing them in bloom at a nursery. The following short list, therefore, is simply a classification of some of the universal favorites, all of which will be found to be very desirable varieties:

YELLOW:

Canari. Outside petals ivory-white, centre amber, medium-sized double flowers.

Solfatare. Outside petals pure white, centre sulphur-yellow, medium-sized double flowers.

WHITE:

Baroness Schroeder. Ivory-white, very large double flowers, blooming in mid-season.

Couronne d'Or. Pure white, with amber-yellow reflex and yellow stamens, centre petals tipped carmine. Large, double fragrant flowers, blooming late.

Duchesse de Nemours (Calot). Sulphur-white with greenish reflections, fading to pure white. Large, double fragrant flowers, blooming in midseason.

Duke of Wellington. White with sulphur-white centre. Large, double fragrant flowers.

Festiva. Pure white, centre petals tipped with crimson. Large, double flowers, blooming late. A dwarf variety.

34. Pæònia (albiflòra hybrids) vars. (Continued)

Festiva Maxima. Pure white, centre petals tipped with crimson. Very large double flowers, blooming early. The finest white form, and one of the best and most freely blooming Peonies.

Marie Lemoine. Pure white, with ivory centre petals tipped carmine. Very large double flowers, blooming late. The best late white variety.

Mme. de Verneville. Sulphur-white with rosy centre petals tipped carmine. Very large, double, finely shaped flowers.

PALE ROSE:

Charlemagne. Flesh-white, centre tinted mauve-pink. Large, double fragrant flowers.

Eugene Verdier. Delicate flesh-pink. Very large double flowers, blooming late.

Mme. Boulanger. White tinted with delicate mauve-pink. Flowers double and very late blooming.

Mme. Calot. Pale pinkish white with darker centre. Large, double fragrant flowers, blooming early.

Rose:

Baron Rothschild. Outside petals shell-pink, centre white. Large, double fragrant flowers.

Edulis Superba. Outside petals violet-rose, centre mauve-rose with silvery reflex. Large, double very fragrant flowers, blooming very early.

Humei. Deep rose-pink with silver tips. Large, double, compact fragrant flowers, blooming late.

L'Indispensable. Very delicate mauve-pink with darker centre. Very large, double flowers, blooming late.

Livingstone. Pale mauve-pink tipped with white, centre touched with carmine. Blooming late.

Perfection (Richardson). Clear flesh-pink shaded with deeper pink. Large, double fragrant flowers, blooming very late.

Souvenir de l'Exposition Universelle. Clear cherry-rose, tipped silver. Large, double fragrant flowers.

RED:

Edouard André. Deep crimson-red, shaded black, with a metallic lustre, golden-yellow stamens. Large, semi-double flowers blooming in mid-season.

34. Pæònia (albiflòra hybrids) vars. (Continued)

Felix Crousse. Brilliant red. Large, double fragrant flowers, blooming in mid-season.

Meissonier. Brilliant purple-crimson. Double fragrant flowers of medium size.

Monsieur Martin Cahuzac. Deep purple-red, shaded black maroon. The darkest variety. Blooming in mid-season.

PARTI-COLORED:

Golden Harvest. Outside petals pale mauve-pink, inside petals creamy white, with bluish pink crimson-tipped centre. Large, double fragrant flowers.

Jeanne d'Arc. Outside petals soft pink, inside sulphur-white with brilliant pink centre stained crimson. Large double flowers.

PAEONIA

(From the classic Greek name paionia, named for Paion, the physician of the gods)

Ranunculàceæ

130. Pæònia tenuifòlia

ENGLISH NAMES: Fennel- or Fern-leaved peony

CAUCASUS

MAY

LARGE, erect, single, deep crimson-red flowers borne on densely leafy stems one to one and one half feet high. Leaves finely cut and feathery, dying after the blooming season. Good for the front of the

herbaceous border on account of the beauty of its flowers, though otherwise the plant is not to be compared with the other species of Peony. Excellent for cutting.

A perfectly hardy perennial of easy culture in partial shade. For proper planting and cultivation see Pæònia officinàlis (page 307).

Propagate by division.

Var. flòre plèno. A double-flowered variety, otherwise similar to the type.



PAPAVER

(The classic Latin name)

67. Papaver orientale, vars. English Name: Oriental poppy.

ASIA MINOR AND PERSIA

JUNE TO FARLY JULY

LARGE open flowers six to eight inches across, typically of brilliant orangescarlet with a dark purple eye and purple stamens, but ranging to pale salmon and deep crimson in the horticultural varieties; borne on strong hairy

stems two to three feet high. Foliage thickest at the bottom but growing somewhat up the stem, leaves large, rough, gravish green, irregularly and deeply notched and extremely decorative, but dying to the ground after the blooming season. All the varieties are excellent for the herbaceous border, though none are equal to the type, whose flowers are of incomparable brilliancy; they must, however, be planted where other plants will conceal the foliage after bloom, as at that time it becomes very unsightly. Must not be crowded, as a considerable green growth is made in the fall. Excellent for cutting.

A perfectly hardy perennial of easiest culture



in any good garden soil, preferably in sun. Should not be disturbed.

Propagate easily by seed sown when ripe or by division after the flowering season, in late July or August.

67. Papàver orientàle, vars. (Continued)

Among the most popular varieties arranged in the order of their color are:

Var. Blush Queen. Pale pink.

Var. Princess Victoria Louisa. Soft salmon-rose shading to blush-rose.

Var. Princess Ena. Clear apricot-pink.

Var. Brightness. Orange-scarlet.

Var. Royal Scarlet. Intense scarlet with dark centres.

Var. Goliath. Crimson-scarlet, the largest flowers of all.

Var. Parkmanii. Rich dark scarlet.

Var. bracteàtum (P. bracteàtum). Deep crimson.

Var. Duke of Teck. Brilliant very dark crimson.

Var. Mahony. Very dark crimson-maroon, almost black.

PAPAVER

(The classic Latin name)

136. Papàver nudicaule, vars.

ENGLISH NAME: Iceland poppy.

ARCTIC REGIONS

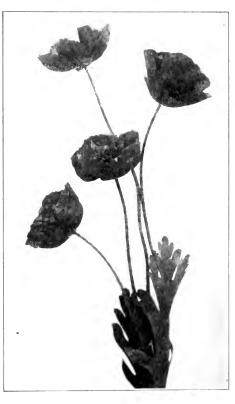
MID-APRIL TO MID-JUNE
LATE AUGUST THROUGH SEPTEMBER

LARGE, delicate, crêpey flowers about two and a half inches across, ranging in color from white through greenish yellow to orange and orange-red; borne singly on hairy leafless stems about twelve inches long,

delicately curving at the top. Leaves grayish green, irregularly and deeply notched, extremely decorative and persistent, in a clump at the base of the plant. Charming in the front of the herbaceous border or in the rock garden, and excellent for cutting. If not allowed to seed will bloom almost continuously until frost.

Technically a hardy perennial, but rarely lasting more than two years except in northern climates. It should therefore be treated as an annual or biennial, and resown every year or every second year. Of easiest culture in light, preferably rather rich soil, in full sun.

Propagate by seed. Will bloom the first year from seed sown early.



PENTSTEMON

(From the Greek pente, five, and stemon, stamens)

Scrophulariàceæ

28. Pentstèmon barbàtus, var. Tórreyi (P. Tórreyi; Chelòne Tórreyi)

ENGLISH NAME: Beard tongue.

COLORADO, NEW MEXICO

JUNE AND JULY

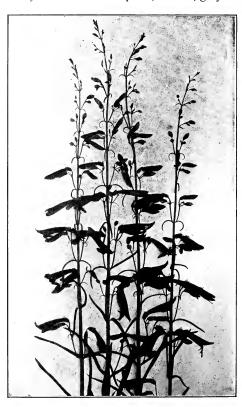
ARROW, tubular, scarlet-coral flowers ranged in erect heads on many stems which rise from a dense clump of foliage to a height of three to four feet. Leaves mostly at the base of the plant, narrow, gravish

green, and persistent. Excellent for the herbaceous border on account of its graceful habit and very good color; also good for cutting.

A hardy perennial of easy culture in any light soil. Good drainage and plenty of water in summer are essential. Requires full exposure to the sun and does best in a sandy loam somewhat enriched with well-rotted manure. In winter cover with ashes.

Propagate by seed or by division.

There are various other varieties ranging from white to yellow-red, and from rose through red, purple, and violet to blue, but probably none is so good as the one here given.



PHLOX

(From the Greek phlox, a flame)

137. Phlóx divaricàta (P. canadénsis)

English Name: Wild sweet William.

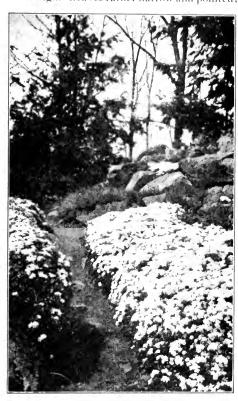
NORTHWESTERN NORTH AMERICA MAY

FLAT, somewhat fragrant, lavender-blue flowers about one inch across, profusely born in small loose clusters terminating slender, branching, leafy stems ten to eighteen inches high. Leaves rather narrow and pointed;

persistent. Excellent for the front of the herbaceous border, for carpeting in damp places, in front of shrubbery, or by the water side, for the rock garden. Good also for cutting.

A perfectly hardy perennial of easiest culture in any moist, rich soil, in sun or shade.

Propagate by seed, cuttings, or by division.



PHLOX

(From the Greek phlox, a flame)

Polemoniaceæ

56. Phlóx paniculàta, vars. (P. decussàta)

English Name: Hardy phlox.

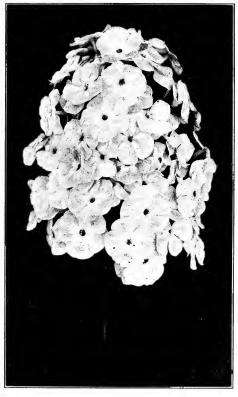
HORTICULTURAL VARIETIES, TYPE FROM PENNSYLVANIA

LATE JUNE THROUGH SEPTEMBER

FLAT flowers one inch or more across, frequently very fragrant, typically pale magenta, but in the horticultural varieties ranging through almost every color except yellow, profusely borne in close elongated heads,

sometimes a foot long, on erect leafy stems from two to four feet high. Leaves medium-sized and narrow, handsome before blooming, but unsightly after the blooming season. One of the most valuable flowers for massing in the herbaceous border on account of its fine habit, wide range of color, and profuse and long bloom. Good also for cutting.

A perfectly hardy perennial of easiest culture in any garden soil, in sun. Does best in rich, rather moist soil. The plants when full grown form clumps two to three feet across, and that much space should be allowed them in the bed. They will thrive without any attention for many years, but for the



best results the clumps should be divided every three years, in late fall, otherwise they are liable to become root-bound and by the growth of surrounding seedlings seem to revert to the type color. By pinching out

56. Phlóx paniculàta, vars. (Continued)

the tips in early summer the season of bloom may be considerably postponed.

Propagate by division.

There are a great number of horticultural varieties of many colors and shades. These differ in size of flower, profusion of bloom, height of plant, and somewhat in season of bloom.

Among the most popular are:

BRIGHT SCARLET:

Baron Von Dedem. Brilliant scarlet-red with salmon shading. Boule de Feu. Brilliant scarlet with crimson eye; low growing. Etna. Brilliant scarlet-red with maroon eye.

Geo. II. Strohlein. Bright orange-scarlet with crimson-red eye; tall growing and very large flowered. The finest scarlet.

SALMON-SCARLET:

Athis. Salmon-scarlet, very tall. Excellent variety.

Gen. Chanzy. Salmon with bright pink centre.

Gen. Von Heutsz. Bright salmon-scarlet with white centre. Excellent variety.

Lothair. Salmon-red, carmine eye.

WHITE:

Frau Anton Buchner. White. Very large flowers and flower heads, late blooming and dwarf. Excellent variety.

Jeanne d'Arc. Pure white. Large flowers, medium tall, very late.

Mrs. Jenkins. White. Very large flower heads, tall and early blooming. Excellent variety.

Tapis Blanc. Pure white. Very large flowers and flower heads, very dwarf. Excellent for edging.

F. G. Von Lassburg. Pure white with the largest white flowers; medium tall.

White with Crimson centre:

Henry Murger. White with very large red eye. Very large flowers. The best of this type.

Richard Wallace. White with deep violet-crimson eye.

56. Phlóx paniculàta, vars. (Continued)

VARIEGATED:

Beranger. Apple-blossom pink with rayed white halo and crimson centre. Very large flowers.

De Miribel. White suffused with rose-scarlet.

LIGHT PINK:

Elizabeth Campbell. Light salmon changing to pink in the centre. Large flowers and flower spikes. Excellent variety.

Gruppenkönigen. Soft flesh-rose, carmine centre.

Mme. Paul Dutrie. Very delicate lilac-rose. Very large flower heads.

BRIGHT PINK:

Rijnstroom. Clear bright pink. Very large flowers and flower trusses. Medium tall. The best bright pink.

R. P. Struthers. Crimson-salmon with claret-red eye.

Wm. Robinson. Salmon-rose with pink centre.

Rose:

Caran d'Ache. Soft old-rose with white eye.

Crépuscule. Lilac-rose with crimson centre. Very large flowers. Excellent variety.

Pantheon. Uniform cerise-rose throughout. Large flowers.

CRIMSON:

Comte von Hockberg. Rich crimson. Large flowers, and fine color.

CARMINE-MAGENTA:

Eclaireur. Rich rose-magenta with large rosy-white eye. Exceptionally large flowers. Low growing. Excellent variety.

Obergartner Wittig. Bright magenta with white centre. Crimson-carmine eye. Large flowers and flower heads.

Rosenberg. Carmine-violet with blood-red eye. Exceptionally large flowers and fine form. Excellent variety.

LAVENDER:

Anton Mercie. Light lavender suffused with lilac.

Eugene Danzanvilliers. Rosy-lilac shading white at centre. Large flower heads. Excellent variety.

56. Phlóx paniculàta, vars. (Continued)

Cross-of-Honor. Lilac with white border to each petal, medium-sized flowers.

BLUE:

Le Mahdi. Deep reddish violet with darker eye, when in shade deep violet-blue. Large flower heads.

PHLOX

(From the Greek phlox, a flame) Polemoniàcea

150. Phlóx subulàta, vars. (P. setàcea, vars.)

English Names: Ground or Moss pink, Wild pink, Flowering moss. HORTICULTURAL VARIETIES, TYPE FROM SOUTHEAST U. S. A. EARLY APRIL TO MID-MAY

TLAT flowers nearly an inch across, typically magenta, but in the horticultural varieties in shades of pink, blue, and white, profusely borne in small clusters on low leafy stems two to six inches high. Leaves very

narrow and sharp, forming a mosslike mat; ever-Excellent as an edging for the herbaceous border, for the rock garden, or for forming a carpet in dry places, on account of its fine foliage and thick sheet of bloom.

A perfectly hardy perennial of easiest culture in any light, dry soil, in full sun.

Propagate by seed, by cuttings, or by division.

The best horticultural varieties are:

Var. àlba (P. nivàlis). White.

Var. atropurpurea. Deep purple-rose, not a very good color.

Var. lilacina (var. G. F. Wilson). Light lilacblue.

Var. Nelsoni. White, small flower.

Var. ròsea. Delicate rose-pink.



PHLOX

(From the Greek phlox, a flame)

101. Phlóx suffruticòsa, vars. (P. glabérrima, var. suffruticòsa; P. nítida)

English Name: Early blooming hardy phlox.

HORTICULTURAL VARIETIES
TYPE FROM SOLUBERN U.S. A

JUNE TO MID-JULY, MID-AUGUST THROUGH OCTOBER

PLAT flowers an inch or more across in white, flesh-pink, or purple, profusely borne in close clongated heads sometimes a foot long, on erect leafy stems from two to four feet high. Leaves medium size, narrow, and

pointed, dark glossy green, and persistent.

The white variety, Miss Lingard, is perhaps the best of all hardy Phloxes on account of its fine foliage and long bloom. All the varieties if not allowed to seed will bloom well a second time in September. One of the most valuable flowers for massing in the herbaceous border. Good also for cutting.

A perfectly hardy perennial of easiest culture in any garden soil, in sun. Does best in rich, rather moist soil. Should not be crowded, and should be divided every three years in late fall.

Propagate by division.

Var. Miss Lingard. Pure white with pale pink eye, is by far the finest. Other

varieties of rather questionable color are:

Var. Burns. Deep rosy-purple.

Var. Ringleader. Light purple with crimson centre.



PHYSOSTEGIA

(From the Greek physa, a bladder, and stego, to cover, in reference to the inflated fruiting calyx)

Labidia

57. Physostègia virgínica (P. virginiàna; Dracocéphalum virginiànum)

ENGLISH NAMES: False dragon's head, Obedient plant, Lion's heart.

NORTH AMERICA

JULY AND AUGUST

MALL, curiously shaped tubular flowers often an inch long, usually rosy-pink but ranging from purplish red through rosy-pink and lilac to flesh-pink, closely borne in graceful terminal spikes on erect stems above

a leafy plant three to four feet high. Foliage thick, fine, and persistent. Good in the herbaceous border, especially as a contrast to plants of coarser habit, or in shrubbery. Good also for naturalizing in moist places and for cutting.

A perfectly hardy perennial of easy culture in a strong, rather moist, and rich soil. Should have a sunny situation. If not allowed to seed, will bloom for a long period.

For good results it requires frequent division or replanting.

Propagate by division in spring.

Var. denticuláta, a smaller and more delicate variety with pink flowers. Excellent.



PHYSOSTEGIA

(From the Greek physa, a bladder, and stego, to cover, in reference to the inflated fruiting calyx)

Labiλiσ

58. Physostègia virgínica, var. álba (P. virginiàna, var. álba; Dracocéphalum virginiànum, var. álbum)

ENGLISH NAMES: White false dragon's head, Obedient plant, Lion's heart.

HORTICULTURAL VARIETY, TYPE FROM NORTH AMERICA

ULLY AND AUGUST

SMALL, white, curiously shaped, tubular flowers, often an inch long, closely borne in graceful terminal spikes on erect stems above a bushy plant three or four feet high. Foliage thick, fine, and persistent.

Good in the herbaceous border, especially as a contrast to plants of coarser habit, or in shrubbery. Good also for naturalizing in moist places and for cutting.

A perfectly hardy perennial of easy culture in a strong, rather moist, and rich soil. Should have a sunny situation. If not allowed to seed, will bloom for a long period.

For good results it requires frequent division or replanting.

Propagate by division in spring.



PLATYCODON

(From the Greek platys, broad, and kodon, a bell)

Campanulacea

79. Platycòdon grandiflòrum (Campanùla grandiflòra; Wahlenbérgia grandiflòra)

English Names: Balloon flower, Japanese bellflower.

EASTERN ASIA

JULY THROUGH SEPTEMBER

LARGE, wide-open, purplish blue, bell-shaped flowers two or three inches across, with curious inflated buds, very freely borne at the tips of close-branching, upright leafy stems, forming a bushy plant one

to three feet high. Leaves about three inches long, pointed-oval, light green, and handsome, lasting in fair condition until October. One of the very best plants for the herbaceous border on account of its profusion and beauty of bloom, long season, and good habit.

A perfectly hardy perennial of easiest culture in a well-drained sandy loam, in sun or shade. Does not do well in either very stiff or very sandy soil, and is very sensitive to poor drainage. Will thrive, however, in poor, dry soil, and when once established will stand considerable neglect.

The stems are soft and require support. They should be tied to light



stakes as soon as they are a foot or so high, for if once allowed to flop upon the ground they cannot be straightened up without breaking. In order to

79. Platycòdon grandiflòrum (Continued)

secure a long period of bloom the seeds should not be allowed to form. In fall the dying stems should not be cut to the ground, but should be left to protect the crown.

Propagate most easily by seed, though the seedling frequently does not come true to the parent in form and color; or, with more difficulty, by division in early spring.

Var. flòre-plèno (var. japònicum). Similar to the type except that the flowers have a double row of petals, one inside the other, forming a ten-pointed star; pretty and interesting, though perhaps not quite so handsome as the type.

PLATYCODON

(From the Greek platys, broad, and kodon, a bell)

Campanulàceæ

80. Platycòdon grandiflòrum, var. álbum (Campánula grandiflòra, var. álba; Wahlenbérgia grandiflòra, var. álba)

English Names: White balloon flower, White Japanese bellflower.

EASTERN ASIA

JULY THROUGH SEPTEMBER

LARGE, wide-open, white or bluish white bell-shaped flowers two to three inches across, with curious inflated buds, very freely borne at the tips of close, branching, upright leafy stems forming a bushy plant

one to three feet high. Leaves about three inches long, pointed-oval, light green, and handsome, lasting in fair condition until October. One of the very best plants for the herbaceous border on account of its profusion and beauty of bloom, long season, and good habit.

A perfectly hardy perennial of easy culture in well-drained sandy loam, in sun or shade. For cultivation see Platycòdon grandiflòrum, page 347.

Propagate most easily by seed, though the seedling frequently does not come true to the parent in form and color; or, with more difficulty, by division in early spring.

Var. flòre-plèno álbum (var. japònicum álbum). Similar to the type ex-



cept that the flowers have a double row of petals, one inside the other, forming a ten-pointed star; perhaps not quite so handsome as the type.

PLATYCODON

(From the Greek platys, broad, and kodon, a bell)

Campanulàcea

119. Platycòdon Marièsi (*P. grandiflòrum, var. Marièsi, P. grandiflòrum, var. glaùcum; Campanúla grandiflòra, var. Marièsi; Wahlenbergia grandiflòra, var. Marièsi)

English Names: Dwarf balloon flower, Dwarf Japanese bellflower.

Japan July through september

LARGE, wide-open, purplish blue bell-shaped flowers two to three inches across, with curious inflated buds, freely borne at the tips of close-branching, upright leafy stems, forming a bushy plant about

one foot high. Stronger and more compact in habit than the type. Leaves about three inches long, pointed-oval, light green, and handsome, lasting in fair condition until October. Excellent for the front of the herbaceous border or for the rock garden on account of its profusion and beauty of bloom, long season, and good habit.

A perfectly hardy perennial of easy culture in well-drained sandy loam, in sun or shade. Does not do well in either very stiff or very sandy soil, and is very sensitive to poor drainage. The stems are sufficiently sturdy to stand without support. In order to secure a long period of



^{*} Form of name most approved by botanical authorities

119. Platycòdon Marièsi (Continued)

bloom the seeds should not be allowed to form. In fall the dying stems should not be cut to the ground, but should be left to protect the crown.

Propagate most easily by seed, though the seedling frequently does not come true to the parent in form and color; or, with more difficulty, by division in early spring.

Var. flore-pleno. Similar to the type except that the flowers have a double row of petals, one inside the other, forming a ten-pointed star; pretty and interesting, though perhaps not so handsome as the type.

PLATYCODON

(From the Greek platys, broad, and kodon, a bell)

Campanulacea

120. Platycòdon Marièsi, var. álbum (*P. grandiflòrum, var. Marièsi álbum; P. grandiflòrum, var. glaùcum álbum; Campánula grandiflòra, var. Marièsi álba; Wahlenbérgia grandiflòra, var. Marièsi álbi)

ENGLISH NAMES: Dwarf white balloon flower, Dwarf white Japanese bellflower, JAPAN JULY THROUGH SEPTEMBER

LARGE, wide-open, white or bluish white bell-shaped flowers two to three inches across, with curious inflated buds, freely borne at the tips of close, branching, upright leafy stems, forming a bushy plant about

one foot high. Stronger and more compact in habit than the type. Leaves about three inches long, pointed-oval, light green, and handsome, lasting in fair condition until October. Excellent for the front of the herbaceous border or for the rock garden on account of its profusion and beauty of bloom, long season, and good habit.

A perfectly hardy perennial of easy culture in well-drained, sandy loam, in sun or shade. Does not do well in either very stiff or very sandy soil, and is very sensitive to poor drainage. Will thrive, however, in poor, dry soil, and when once established will stand considerable neglect. The

^{*} Form of name most approved by botanical authorities.



120. Platycòdon Marièsi, var. álbum (Continued)

stems are sufficiently sturdy to stand without support. In order to secure a long period of bloom the seeds should not be allowed to form. In fall the dying stems should not be cut to the ground, but should be left to protect the crown.

Propagate most easily by seed, though the seedling frequently does not come true to the parent in form and color; or, with more difficulty, by division in early spring.

Var. flòre plèno álbum. Similar to the type except that the flowers have a double row of petals, one inside the other, forming a ten-pointed star; pretty and interesting, though perhaps not so handsome as the type.

PLUMBAGO

(From the Latin plumbum, lead)

Plumbasinaceæ

151. Plumbàgo Lárpentæ (*Ceratostigma plumbaginoìdes;

Valoràdia plumbaginoìdes)

ENGLISH NAME: Leadwort.

CHINA

MID-AUGUST THROUGH OCTORER

SMALL flowers of deep blue, gradually turning violet, profusely born in dense heads on shrubby branching red stems, forming persistent leafy tufts from six to twelve inches high. Excellent for edging in the

herbaceous border on account of its brilliant color and neat habit, and for the rock garden.

A hardy perennial of easy culture inwarm, light soil, and full sun. Requires a covering of leaves or litter in winter.

Propagate by division.

^{*}Name most approved by botanical authorities.



POLEMONIUM

(From polemonion, the Greek name for Valerian, perhaps named for the philosopher, Polemon)

Polemoniacea

102. Polemônium cærûleum

English Names: Jacob's ladder, Greek valerian, Ladder-to-heaven, Charity, Makebale.

NORTH ASIA, EUROPE

MID-MAY THROUGH JULY

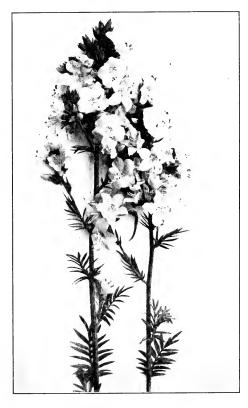
BELL-SHAPED violet-blue flowers nearly one inch across, borne in compact terminal heads on stout, erect, unbranching, somewhat leafy stems one to three feet high. Leaves compound, consisting of many

small pointed leaflets regularly arranged along the leaf stem, largest and most abundant at the base of the plant, very pretty and persistent. Excellent in clumps for the herbaceous border, though never making very much of a color display.

A perfectly hardy perennial of easy culture in any deep, rich, loamy soil, in partial shade. Requires a considerable amount of moisture. The foliage is easily affected by soil spattered on the leaves by rain.

Propagate by seed sown in the fall or by division.

Var. álbum (P. álbum). A white-flowered variety as good as the type.



POLEMONIUM

(From polemonion, the Greek name for Valerian, perhaps named for the philosopher, Polemon)

Polemoniacca

138. Polemònium hùmile, var. Richardsóni (P. Richardsóni; P. villòsum)

ENGLISH NAME: Dwarf Jacob's ladder.

ARCTIC REGION UNE AND HELY

RAGRANT, bell-shaped, purplish blue flowers sometimes over an inch across, with golden anthers, borne in compact terminal clusters of ten to twenty flowers, often four inches across and three inches deep,

on slender, erect, unbranching, somewhat leafy stems about one foot high. Leaves compound, consisting of many small leaflets regularly arranged along the leaf stem, largest and most abundant at the base of the plant, very pretty and The best persistent. species of Polemonium, excellent for the front of the herbaceous border, for the rock garden, and for cutting.

A perfectly hardy perennial of easy culture in any deep, rich, loamy soil, in partial shade.

The foliage is easily affected by soil spattered on the leaves by rain.

Propagate by seed sown in the fall or by division.



(From the low Latin primula, diminutive of primus, first, because of early blooming)

Primulāceæ

152. Prímula cortusóides, var. Sièboldi (P. Sièboldi; P. cortusóides, var. amoèna; P. cortusóides, var. grandiflòra)

ENGLISH NAME: Siebold's primrose.

IAPAN APRIL TO MID-MAY

SHOWY flowers, in some varieties fringed, one to two inches across, ranging from pure white through lavender to deep purple-rose, borne in terminal clusters on straight, upright hairy stems six to twelve

inches high. Leaves in a large rosette at the base of the flower stem, soft and somewhat hairy, rounded-oval, wavy edged, and handsome; turn yellow and disappear shortly after the blooming season, but make another green growth late in summer. Excellent for the herbaceous border or for the rockgardenonaccount of its beautiful flowers. Is not suitable for edging because of its bad foliage habit. Good for cutting.

A hardy perennial of easy culture in light, open soil well enriched with leaf mold, in a somewhat sheltered and partially or wholly shaded situation. Should be protected by a light covering of leaves in winter and divided every three years.



Propagate by division immediately after flowering or by seed.

(From the low Latin primula, diminutive of primus, first, because of early blooming)

121. Prímula japónica

English Name: Japanese primrose.

Japan MID-MAY TO LATE IVLY

SHOWY flowers about an inch across ranging in color from white through rose-pink to deep purple-red, borne in several superimposed whorls of twelve or more flowers, each on straight, upright, leafless stems

one to two feet high. Leaves in a clump at the base of the flower stalks, oval and finely toothed, rather thick and rounded on the upper surface. Handsome and persistent. Excellent for shady places in the front of the herbaceous border, for the rock garden, or for naturalizing in moist, shady spots. Good also for cutting.

A perfectly hardy perennial of easy culture in deep, rich, moist soil, in shade or partial shade. Should be divided at least once every three years to avoid its becoming root bound.

Propagate by seed sown as soon as ripe or by division immediately after flowering.



(From the low Latin *primula*, diminutive of *primus*, first, because of early blooming)

Primulacea

153. Prímula Polyántha, vars. (Polyánthus; P. elàtior)

English Names: English Primrose, Cowslip, Oxlip.

HORTICULTURAL VARIETY

APRIL TO MID-MAY

SHOWY flowers about an inch wide, of various shades of yellow, and dark red and yellow mixed, borne several in a cluster on upright stems rising above the leaves to a height of six to twelve inches. Leaves

in a rosette at the base of the plant, rather long and thick, rounded-oval, bright green, handsome, and persistent. Excellent as an edging for the herbaceous border on account of the richness of coloring of the flowers and the attractive foliage. Good also for cutting.

A hardy perennial of easy culture in rich, somewhat moist soil, in shade or partial shade. Should be protected by a light covering of leaves in winter and divided every three years.

Propagate by seed or by division immediately after flowering.

The origin of P. Polyántha is much debated; it is perhaps a cross between P. vulgáris and P. officinális or P. elátior, perhaps directly derived from P. elátior or from P. vulgáris.



The so-called "Munstead strain" is a fine, large variety. There is also an interesting and pretty variety known as duplex (or Hose-in-hose), in which there is one complete flower inside another.

(From the low Latin primula, diminutive of primus, first, because of early blooming)

Primulaces

154. Prímula véris supérba (*P. Harry Mitchell)

ENGLISH NAMES: Giant primrose, Giant cowslip.

HORTICULTURAL VARIETY APRIL TO MID-MAY

VERY fragrant flowers one to two inches in diameter, bright primroseyellow with deeper yellow centres, freely borne in clusters on upright stems which rise above the leaves to a height of six to twelve inches.

Leaves in a rosette at the base of the plant, rather long and thick, roundedoval, bright green, handsome, and persistent.

Excellent as an edging for the herbaceous border on account of its bright masses of bloom and attractive foliage. Good also for cutting.

A perfectly hardy perennial of easy culture in rich, somewhat moist soil, in partial shade or shade. Should be divided at least once every three years to avoid its becoming root bound.

Propagate by seed or by division immediately after flowering.

A hybrid form of doubtful origin, perhaps a cross between P. Polyántha and P. vulgáris.



^{*}Name most approved by botanical authorities.

PYRETHRUM

(From pyrethron, the Greek name for the plant, derived from pyr, fire, on account of the hot taste of the root)

Composite

122. Pyrèthrum hỳbridum vars. (P. ròseum; *Chrysánthemum coccíneum)

ENGLISH NAME: Feverfew.

HORTICULTURAL VARIETIES, TYPE FROM THE CAUCASUS AND PERSIA

IUNE AND JULY

SINGLE or double daisylike flowers sometimes two inches across, ranging in color from pure white through pink to rich crimson-red and also pale yellow, with bright yellow centres in the single forms; pro-

fusely borne on the ends of erect, rarely branching stems one to two feet high. Leaves very finely divided and rather inconspicuous. Excellent in masses in the herbaceous border on account of the brilliance and profusion of its flowers. Good also for cutting. If the flowers are picked as soon as they begin to fade the period of bloom will be prolonged, or if the plants be cut down after June a good second crop will be borne in the fall.

A hardy perennial of easy culture in rich, sandy, well-drained loam. In heavy or badly drained soil the plants are not hardy. Should be planted in full sun, but the roots should be kept cool and moist by shade or better by a mulch of manure. In



planting the ground should be deeply dug and well enriched with manure.

^{*} Name most approved by botanical authorities.

122. Pyrèthrum hybridum vars. (Continued)

Propagate by division in spring.

There are a great many named varieties carried by the European nurserymen, but the American nurserymen rarely catalog them by name.

PYRETHRUM

(From pyrethron, the Greek name for the plant, derived from pyr, fire, on account of the hot taste of the root)

Compósita

14. Pyrèthrum uliginòsum (*Chrysánthemum uliginòsum)

English Name: Giant daisy.

HUNGARY

AUGUST AND SEPTEMBER

LARGE daisylike flowers two to three inches across, pure white with yellow centres, profusely borne in loose clusters on leafy upright stems branching at the top, forming a dense bushy plant four to five feet

high. Leaves light green and persistent. Excellent for moist spots in the herbaceous border, or for naturalizing by the water side. Good also for cutting. The flowers should be cut as soon as fully open to ensure continuous bloom.

A perfectly hardy perennial of easy culture in rich, heavy loam, in sunny situations. Should have an abundance of moisture at all times.

Propagate by seed, from which it will bloom the first year, or by cuttings, suckers, or division.

^{*}Name most approved by botanical authorities.



RUDBECKIA

(Named for Claus Rudbeck, d. 1702, founder of the botanical garden at Upsala)

Composite

81. Rudbéckia speciòsa (R. áspera; R. Névemanii)

English Names: Cone flower, Black-eyed Susan.

SOUTHEASTERN U. S. A. IULY TO EARLY AUGUST

DAISYLIKE flowers three to four inches in diameter, with bright yellow rays and large conical velvety maroon centres, profusely borne at the ends of upright branching stems one to three feet high.

Leaves long and rather narrow, mostly at the base of the stems, and somewhat inconspicuous. Excellent for massing in the herbaceous border on account of the brightness of its flowers, or for naturalizing in dry places. Good also for cutting.

A perfectly hardy perennial of easiest culture in any garden soil, in sun or partial shade.

Propagate by cuttings or by division.



SALVIA

(The Latin name from salvus, safe, on account of its healing properties)

Labiatæ

35. Sálvia azùrea, var. grandiflòra (S. Pítcheri)

English Name: Meadow sage.

SOUTH-CENTRAL U. S. A.

AUGUST AND SEPTEMBER

MALL tubular flowers of sky-blue varying to white, in long terminal spikes borne on erect leafy stems two to five feet high. Leaves rather small and narrow, pointed and saw-toothed at the base of the plant,

smooth above, slightly downy, and persistent. Excellent for the herbaceous border on account of the lovely color of its flowers.

A hardy perennial of easy culture in light, sandy soil. Requires a sunny situation, and in a cold climate should be given a light covering of leaves in winter.

Propagate by seed or by division.



SCABIOSA

(From the Latin scabo, to scratch, because supposed to cure eruptions)

Dipsacacea

109. Scabiòsa caucàsica

ENGLISH NAMES: Pin cushion flower, Blue bonnet.

CAUCASUS JUNE THROUGH SEPTEMBER

LARGE light blue flowers with a single row of rather irregular rays and full rounded centre of little florets, borne terminally on long erect stems eighteen inches to two feet high. Leaves small, narrow, and

divided, grayish green and insignificant. Good for the herbaceous border, when massed where other plants supply its lack of foliage, on account of its fine color and long season of bloom if not allowed to seed. Excellent for cutting.

A hardy perennial of easy culture in any good garden soil, in sun. Should be protected by a covering of leaves in winter.

Propagate by seed or by division.

Var. álba. A pure white flowering form otherwise similar to the type. Excellent.



SEDUM

(From the Latin sedeo, to sit, because the plant grows flat among rocks)

Crassilàrea:

123. Sèdum spectábile (S. Fabària)

ENGLISH NAMES: Showy sedum, Stone crop.

POSSIBLY FROM JAPAN

MID-AUGUST TO EARLY SEPTEMBER

MALL flowers of rose-pink varying to purplish and whitish, in showy, broad, slightly convex heads sometimes four inches across, borne on stout, erect, leafy stems one to two feet high. Leaves broadly rounded,

wavy along the edges, thick, smooth, grayish, and evergreen. Excellent for the front of the herbaceous border, for the rock garden, and for massing in barren spots.

A perfectly hardy perennial of easiest culture in any soil, even in sand, stiff clay, or among rocks, provided that it has good drainage in winter. Requires a sunny situation.

Propagate by seed, offsets, or by division.



(From the Greek speira, a wreath or twist)

Rosacea

131. Spiræa astilbòides, var. floribúnda (*Astílbe astilbòides, var. floribúnda; Arúncus astilbòides, var. floribúnda; Spiræa Aruncus, var. astilbòides floribúnda)

English Name: Meadow sweet.

TAPAN

JUNE

VERY small creamy-white flowers in graceful terminal plumelike spikes, freely borne at a height of one to two feet on branching leafy stems. Leaves large and compound, dark glossy green and persistent;

highly decorative. Excellent for the herbaceous border or for naturalizing by the water side, on account of its handsome foliage and flowers, and neat habit. Good also for cutting.

A perfectly hardy perennial of easy culture in any good garden soil, preferably moist, in sun or partial shade.

There is much confusion over this plant because of its close resemblance to Astilbe japonica, the well-known florist's Spiræa or false goat's beard, which is also a useful border plant but has looser flower spikes and is usually not so tall growing.



^{*} Name most approved by botanical authorities.

(From the Greek speira, a wreath or twist)

Rosacea

167. Spirà Filipéndula (Ulmària Filipéndula; Filipéndula hexapétala)

English Names: Dropwort, Meadow sweet.

EUROPE, W. ASIA, SIBERIA

IUNE

VERY small, fragrant, feathery white flowers, with pink buds, in loose, irregular, flattish terminal clusters, borne in profusion on slender, erect, branching stems rising about a foot high above a mass of very

low, fine, feathery foliage. Leaves fernlike, six to eighteen inches long, springing from the roots, dainty and evergreen. Excellent for the herbaceous border or for the rock garden. Good also for cutting.

A perfectly hardy perennial of easiest culture in rather dry soil and full sun.

Propagate by seed sown in spring or by division.

Var. flòre plèno. Has double flowers which, though not quite so dainty as those of the type, last longer. Excellent.



(From the Greek speira, a wreath or twist)

Rosacear

36. Spiræa lobàta, var. venûsta (*Ulmària rûbra, var. venûsta; S. venûsta; Filipèndula lobàta)

ENGLISH NAME: Queen-of-the-prairie.

HORTICULTURAL VARIETY, TYPE FROM U. S. A., PENN, TO GA.

MID-JULY THROUGH AUGUST

VERY small, feathery carmine flowers in showy, loose, irregular, flattish terminal clusters, profusely borne on erect leafy stems two to six feet high. Leaves elmlike, with seven to nine points and saw-edged;

large, handsome, and persistent. Good for planting in the herbaceous border or among shrubbery, and especially for naturalizing in masses by the water side. Good for cutting.

A perfectly hardy perennial of easiest culture in moist, rich soil, in partial shade.

Propagate by seed or by division.

*Name most approved by botanical authorities.



(From the Greek speira, a wreath or twist)

Rosaceæ

82. Spiræa palmàta, var. élegans (*Ulmària purpùrea, var. élegans; Filipéndula purpùrea)

English Name: Crimson meadow sweet.

HORTICULTURAL VARIETY, TYPE FROM JAPAN

MID-JUNE TO LATE JULY

VERY small, fragrant, feathery white flowers with red stamens giving a silvery pink effect, in loose, irregular, flattish terminal clusters, profusely borne on erect, purplish, leafy stems two to four feet high.

Leaves elmlike with large, five to seven pointed, terminal leaflets and single-pointed side leaflets, saw-edged, very large, handsome, and persistent. The finest species of the Ulmarias, excellent for the herbaceous border, for planting among shrubbery, or for naturalizing by the water side. Good also for cutting.

A perfectly hardy perennial of easy culture in any moist, rich soil, in partial shade.

Propagate by seed or by division.

S. palmáta. The type of which this plant is a variety has deep pink or carmine flowers and is equally fine in every way except that the color of the flowers is not so delicate.



^{*}Name most approved by botanical authorities.

STATICE

(The name given by Pliny to some astringent herb, from the Greek statikos, causing to stand, referring to its use in stopping bleeding)

Plumbaeinàceæ

110. Státice latifòlia

ENGLISH NAME: Great sca-lavender.

RUSSIA

MID-JULY THROUGH AUGUST

VERY small, fragrant, blue flowers in large, very loose-spreading heads forming a cloud of bloom, profusely borne on delicate branching stems which rise above the foliage to a height of one to two feet. Leaves

large, rounded-oval, luxuriant, and persistent.

Good for the herbaceous border, but especially useful for the rock garden or dry places, or in front of shrubbery. Good also for cutting.

A perfectly hardy perennial of easiest culture in deep, sandy soil, in full sun. Should not often be disturbed.

Propagate by seed sown in spring.



STOKESIA

(Named for Dr. Jonathan Stokes, 1755-1831, an English botanist)

Compósitæ

124. Stokèsia cyànea

English Names: Stokes' aster, Cornflower aster.

GEORGIA, SOUTH CAROLINA

JULY THROUGH OCTOBER

LARGE, double, purplish blue flowers somewhat resembling a China Aster, sometimes three to four inches across, borne on erect leafy stems one to two feet high. Leaves long and narrow, rather incon-

spicuous. Excellent in clumps in the herbaceous border on account of its fine though not very profuse flowers and long season of bloom. Excellent also for cutting.

A perennial of easy culture in well-drained sandy loam, in the sun. Perfectly hardy in the south and, with winter protection, hardy in New England.

Propagate by division. Var. álba. A pure white flowered form similar to the type. Excellent.



THALICTRUM

(An ancient Greek plant name derived from thallo, to bloom)

Ranunculáceæ

37. Thalíctrum aquilegifòlium, var. róseum

English Names: Meadow-rue, Feathered or Tufted columbine.

EUROPE, N. ASIA

MID-MAY TO MID-JULY

PEATHERY rose-colored flowers in large fluffy clusters, borne on erect forking stems one to four feet high. Leaves three lobed, delicately attached to long side stems, dark green, and resembling the foliage

of the Columbine, or, on a very large scale, the maidenhair fern; persistent and very decorative.

Excellent for the herbaceous border or for naturalizing in front of shrubbery.

A perfectly hardy perennial of easiest culture in any good, welldrained loam, in sun or partial shade.

Propagate by seed or by division in early spring.

T. aquilegifòlium. The type of which this plant is a variety has whitish yellow flowers. Excellent.



TRADESCANTIA

(Named for John Tradescant, gardener to Charles I, d. about 1638)

Commelinàcea

103. Tradescántia virginiàna (T. virgínica)

English Names: Common spiderwort, Spider lily, Trinity violet, Flower-of-aday.

EASTERN U. S. A.

MID-MAY TO MID-JUNE, MID-AUGUST TO MID-SEPTEMBER

VIOLET-BLUE flowers of various shades, one to two inches across, freely borne in terminal clusters on vigorous erect branching stems forming a bushy plant one to three feet high. Leaves grasslike, six to

fifteen inches long; persistent. Excellent for the herbaceous border or rock garden on account of its freeness of bloom and long season.

A perfectly hardy perennial of easiest culture in ordinary garden soil, in sun or partial shade.

Propagate by cuttings or by division in spring.

Var. álba. Has white flowers. Excellent.

Var. cærûlea. Has brighter blue flowers than the type. Excellent.



TRITOMA

(From the Greek tritomos, thrice cut, the stygma and capsule being three-parted)

Liliacer

83. Tritóma Pfítzeri (*Kniphôfia Pfítzeri)

ENGLISH NAMES: Red-hot poker plant, Flame flower, Torch lily, Triton's spear.

PORMAL pointed spikes about twelve inches long composed of a great many small drooping tubular flowers about an inch long, rich orange-scarlet in color, shading to salmon-rose at the bottom, closely

and regularly arranged, and borne on erect stems two to four feet long. Leaves very long and narrow, two to three feet long, springing from the base of the plant and curving gracefully to the ground. Excellent for the herbaceous border on account of its very brilliant flowers and length of bloom. Extremely striking in masses against shrubbery. Good also for cutting.

A perennial of easy culture in well-drained, light, sandy soil, with plenty of water in summer. A warm sheltered situation is desirable, in sun or partial shade. If covered with a deep mulch of manure in winter it is hardy as far north as Philadelphia,



but farther north the short rhizomes should be taken up in November and wintered indoors in dry earth.

^{*}Name most approved by botanical authorities.

84. Tritóma Pfitzeri (Continued)

Propagate by division.

There are a number of horticultural varieties ranging through many shades and combinations of red, orange, and yellow, and with considerable difference in their season of bloom, but none so profuse or with as long a season as the *Pfitzeri* variety.

TROLLIUS

(From the old German trol, round, referring to the shape of the flowers)

Ranunculaceae

125. Tróllius europæus (T. globòsus)

English Names: Globe flower, Golden ball.

N. EUROPE EARLY MAY TO EARLY JUNE

LARGE, double, globular lemon-yellow flowers one to two inches across, borne singly or in pairs at the ends of sturdy, upright, sometimes branching stems one to two feet high. Leaves mostly at the base of

the plant, large, sharply divided, and notched; handsome and persistent. Excellent in clumps in moist spots, in the herbaceous border, or for naturalizing by the water side, on account of the beautiful form and color of its flowers and fine Good also for foliage. cutting. A second crop of smaller flowers is frequently produced in autumn.

A hardy perennial of easy culture in moist, peaty loam, heavy rather than sandy, in partial shade. Will grow, however, in ordinary garden soil if not allowed to become dry. Does better in a cool than in a warm climate.

Propagate by seed or by division. Grows very



slowly at first from seed, which frequently does not germinate the first year.

There are a number of excellent varieties and related species, among the most popular are:

125. Tróllius europæus (Continued)

- T. asiáticus. Flowers more open, rich orange, with orange-red anthers, the most brilliant species.
 - T. japónicus excélsior. Bright yellow.
- T. caucásicus var. "Orange Globe." Rich orange, perhaps the best species of all.

TUNICA

(From the Latin tunica, a cloak, alluding to the bracts at the base of the calyx)

Caryophyllacea

164. Tùnica Saxífraga

English Names: Tunica, Saxifrage pink.

S. EUROPE, ASIA

LATE JUNE THROUGH AUGUST

VERY small pink or purplish pink flowers, borne in profusion on wiry stems six to ten inches high. Leaves very small, dark green, and persistent, forming a tufted spreading mat. When in bloom presents

an appearance somewhat like that of the Gypsophila, a delicate pinkish cloud. Not striking, but very dainty and always useful because of its trim foliage. Good for edging the herbaceousborder and excellent for the rock garden, or for naturalizing in old walls, etc., as it will grow in the poorest soil.

A perfectly hardy perennial of easiest culture in any soil, in sun.



VALERIANA

(From the Latin valere, to be strong, because of its medicinal uses) $Valerian \hat{a} c a \omega$

59. Valeriàna officinàlis

English Names: Common valerian, Cat's valerian, Garden heliotrope, Allheal, Cut-heal, Setwall, Herb bonnet, St. George's herb, Spurred flower.

EUROPE, N. ASIA

JUNE TO JULY

MALL, very fragrant flowers varying to whitish or lavender, freely borne on somewhat downy and branching stems two to five feet high. Leaves compound with several narrow pointed leaflets, showy, fragrant,

and persistent. Excellent for the herbaceous border, more on account of its aromatic odor than for its flowers; or for naturalizing among shrubbery.

A perfectly hardy perennial of easiest culture in any soil, even in waste places, in sun. It spreads rapidly, soon forming large clumps.



VERONICA

(Named for Saint Veronica)

Scrophularideeæ

155. Verónica incàna (V. cándida; V. neglécta)

English Name: Hoary speedwell.

S. W. EUROPF, N. ASIA

JULY TO MID-AUGUST

SMALL, rich blue flowers in many graceful slender spikes three to six inches long, borne on branching leafy stems eight to eighteen inches high. Leaves one to three inches long, rather narrow and pointed, downy

grayish green, and persistent. Excellent for the front of the herbaceous border on account of its trim and fresh appearance both in and out of bloom; good also for the rock garden.

A perfectly hardy perennial of easiest culture in any garden soil, preferably sandy, in sun.



VERONICA

(Named for Saint Veronica)

Scrophulariàceæ

104. Verónica longifòlia, var. subséssilis

ENGLISH NAME: Speedwell.

JAPAN

MID-JULY TO MID-SEPTEMBER

MALL, intense, lavender-blue flowers in numerous, showy, slender spikes six to twelve inches long, rising above vigorous, erect, branching leafy stems forming compact clumps two to three feet high. Leaves

two to four inches long, narrow pointed and sawedged, green and persistent. Probably the
best known and certainly
one of the most satisfactory Veronicas on
account of its sturdy habit
and brilliant flowers. Excellent for the herbaceous
border or for naturalizing
in front of shrubbery.

A perfectly hardy perennial of easiest culture in any good garden soil, in sun. Does best in deep, rich loam in an open situation.



VERONICA

(Named for Saint Veronica)

Scrophulariaceæ

169. Verónica rupéstris (V. fruticulòsa)

ENGLISH NAME: Rock speedwell.

MALL, deep purplish blue flowers in many dense erect spikes, rising to a height of four to five inches from woody, creeping, leafy stems. Leaves narrow and pointed, one half to one inch long, forming a neat close

mat. Excellent as an edging for the herbaceous border on account of its dense foliage habits and the profusion of its flowers, or for planting in the rock garden.

A perfectly hardy perennial of easiest culture in any good, sandy garden soil, preferably in sun.



VIOLA

(The classical Latin name)

165. Vìola cornùta

English Names: Horned violet, Bedding pansy, Tufted pansy.

S. EUROPE

EARLY APRIL THROUGH OCTOBER

PALE blue, slightly fragrant flowers like small Pansies, freely borne on erect bare stems about six inches high, above handsome tufts of foliage. Leaves rather large, irregularly heart-shaped, bright green, and persistent.

Excellent for edging the herbaceous border on account of its fine habit, long season of bloom, and charming flowers. Good also for the rock garden and for cutting.

A perfectly hardy perennial of easiest culture in any good garden soil, in sun or partial shade.

Propagate by seed, cuttings, or by division.

There are several varieties as good as the type, which furnish a number of different colors, among these are:

Var. álba, white.

Var. Admiration. Purple-blue with dark eye.

Var. G. Wernig. Deep blue, large flowers.

Var. lútea. Yellow.

Var. *Papilio*. Violet with dark eye, large flowers



YUCCA

(The Indian name for the Manihot, erroneously applied to this plant)

Luliacea

11. Yúcca filamentósa

English Names: Adam's needle, Adam's needle and thread, Thready yucca, Eve's thread, Thread and needle, Eve's darning needle, Bear's thread, Bear grass, Silk grass.

SOUTHEASTERN U. S. A.

MID-JUNE THROUGH JULY

CREAMY-white flowers like very small Magnolia blossoms, borne pendently in long loose spikes on erect stems four to six feet high. Leaves evergreen in a clump at the base of the flower stalks, long and

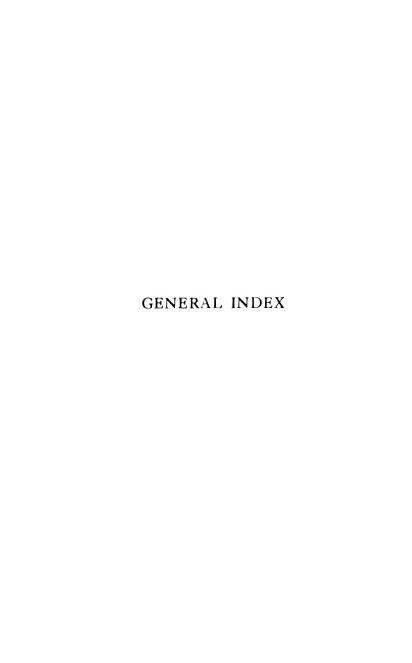
narrow, about one inch wide, very sharply pointed, stiff and erect toward the centre, but recurving at the outside of the clump, grayish green with threadlike fibres along the edges. Excellent for formal clumps in the herbaceous border or for planting against a background of shrubbery.

A perfectly hardy perennial of easiest culture in any well-drained soil, in sun. Being a desert plant, it grows well in barren places, and thrives best in sandy loam.

Propagate by seed, offsets, or by stem cut tings.







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